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ABSTRACT

Vocational education administrators must think of themselves as managers of manpower development systems and apply tools of management to achieve their objectives. To do this a theoretical model, called the Manpower Conversion Equation, was developed from which six basic vocational education objectives could be generated deductively. The model states essentially that supply should equal demand for skilled manpower. From a sample of 22 U.S. cities with populations of 250,000 or over, 1970 graduates of 449 secondary schools were surveyed by a questionnaire scored by an optical scanner. Analyses were made by sex and race, by type of program, and by type of occupation. Fifteen basic findings, reported by table and text, lead to the identification and discussion of ten basic problems areas: absence of manpower conversion concept, absence of measurable vocational education objectives, inadequate vocational education supporting systems, undefined responsibility and accountability, inappropriate administrative organization for effective vocational education, inadequate relations with employer community, inadequate relations with community of parents, absence of vocational education operational research, inadequate involvement of vocational teacher personnel, inadequate application of management concepts principles and techniques. (MS)

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Effectiveness Evaluation Data for

Major City Secondary Education Systems

In the United States

CLASS OF 1970 FOLLOW-UP SURVEY
VOCATIONAL PROGRAM GRADUATES

PROJECT METRO

M. U. ENINGER

EDUCATIONAL SYSTEMS
RESEARCH INSTITUTE

Pittsburgh, Pennsylvania

1972

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EFFECTIVENESS EVALUATION DATA FOR MAJOR CITY SECONDARY EDUCATION SYSTEMS IN THE UNITED STATES

VOLUME IV.

SURVEY OF CLASS OF '70 GRADUATES VOCATIONAL PROGRAMS

PROJECT METRO

M. U. ENINGER, PH.D.

EDUCATIONAL SYSTEMS
RESEARCH INSTITUTE

Pittsburgh, Pennsylvania

1972

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OFFICE OF PROGRAM PLANNING & EVALUATION
U. S. OFFICE OF EDUCATION
DEPT. OF HEALTH, EDUCATION & WELFARE
Washington, D. C.

FORWARD

The central issue in the major city vocational education does not have to do with specific vocational process problems, such as relevance of curriculum, adequacy of pupil services, expansion of cooperative education opportunities and the many other problem areas in need of new approaches or improved execution of present approaches. Important as they are, these problem areas remain elements of the total process, and as such they are not the key to the necessary changes that will make public vocational education a vital and major source of skilled manpower.

The core problem has to do with vocational education management. Those who are administratively responsible for vocational education must adopt the concept that they are in the business of manpower development, serving two clients, the students in need of employable skills and the employers in need of skilled manpower. Until they do there will be no substantial leap forward in the effectiveness and efficiency of public vocational education. Such administrators must think of themselves as managers of manpower development systems, and they must apply all the tools of modern management to achieve their objectives.

It is a rare major city school system that can claim this concept of vocational education. Even rarer, is the school system that acts like it has adopted in earnest the manpower development concept of vocational education.

M. U. Eninger

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CHAPTER 1. INTRODUCTION AND THEORETICAL BACKGROUND

VOCATIONAL EDUCATION IN MAJOR CITIES

For Project Metro study purposes, a major city was defined as one with a population of 250,000 or more. There are by 1970 Census data 56 such cities, and their combined population equals about 42,300,000 or 21 percent of the total U. S. population. It is about this universe of cities that Project Metro seeks to draw some generalizations.

These cities are of particular interest for vocational education research for several reasons:

1. Total pupil enrollment. The total secondary enrollment in these cities is about 2,962,387 or 22 percent of the total U. S. secondary enrollment. This concentration of enrollment in 56 school districts or .3 percent of the total U. S. school districts is a strong argument for assessing the effectiveness of secondary vocational education in major cities.
2. Total vocational enrollment. The total secondary vocational program enrollment is about 512,125 or 10 percent of the total U. S. secondary vocational enrollment. Again, the concentration of so much secondary enrollment in relatively few school districts makes the study of major city vocational education advisable.
3. Diversity of student population. The populations of the major cities are widely heterogeneous in terms of race, ethnic groups, national origins, socio-economic status, and other such factors that represent a challenge to public education. In addition, the major cities have a disproportionate concentration of those students who are culturally, economically, academically and socially disadvantaged as well as students who are physically and mentally handicapped. These are the very target populations that many claim should be the focus of vocational education.
4. Diversity of occupational opportunities. In small towns and rural areas, schools offering vocational programs are confronted with a

limited diversity of occupational opportunities in the communities served. This invariably influences the range of vocational curricula made available to students. In the major cities, the diversity of occupational opportunities in a normal economy is extremely great. Cities like New York, Chicago, and Philadelphia virtually run the gamut of occupations listed in the U. S. Dictionary of Occupational Titles when one excludes those that are inherently rural occupations. Hence, the diversity growth challenge to vocational education is greatest in the major cities.

5. Concentration of educational resources. Despite the severe financial constraints under which most major city school districts operate, the fact remains that they do have a heavy concentration of educational resources and talents. Educational specialists of every variety are represented on their personnel rosters. Educational administrative talent is by the nature of higher salaries and the professional ladders of success drawn to the major city school systems. The challenge of the bigger situation acts like a magnet to draw the more competent and the more able to larger and larger school districts.

6. Pressures for innovation. One has only to read the major city newspapers, as the writer has in his travels between the twenty-two major cities involved in the present study, to sense the turbulence and dissatisfaction that centers around public education. There are probably more community pressures for educational changes in the major cities than anywhere else. The diversity of powerful special interests virtually guarantees sustained pressure for educational innovation.

In short, major city vocational education is of the greatest research and evaluation interest because that is where the challenges are the greatest and from which the newest trends can be expected to develop, assuming that the bureaucratic inertias can be overcome by diligent Federal, state and local leadership.

Table 1.1 provides population and secondary enrollment data on the 56 cities with a population above 250,000 by the 1970 U. S. Census data. The table defines the city universe to which Project Metro seeks to generalize.

TABLE 1.1 SECONDARY ENROLLMENT DATA FOR MAJOR U.S. CITIES

CITIES WITH POPULATION OVER 250,000	POPULATION IN THOUSANDS		SECONDARY ENROLLMENT					
	1960 [A]	1970 [A]	VOCATIONAL [B]		NON-VOCATIONAL		TOTAL [C]	
			NUMBER	%[1]	NUMBER	%[1]	NUMBER	%[2]
CLASS 1 CITIES	18,422	18,769	211,366	27.4	561,289	72.6	1,103,958	37.3
CHICAGO	3,550	3,367	93,737	64.2	52,188	35.8	145,925	4.9
DETROIT	1,670	1,511	19,319	15.8	102,705	84.2	122,024	4.1
HOUSTON	938	1,233	18,732	19.0	79,916	81.0	98,648	3.3
LOS ANGELES	2,479	2,814	51,285	18.3	229,710	81.7	280,995	9.5
NEW YORK	7,782	7,895	NR	--	----	--	331,030	11.2
PHILADELPHIA	2,003	1,949	28,293	22.6	96,770	77.4	125,063	4.2
CLASS 2 CITIES	12,192	12,964	119,520	15.4	699,434	84.6	921,761	31.1
BALTIMORE	939	906	NR	--	----	--	74,374	2.5
BOSTON	697	614	8,122	22.4	28,173	77.6	36,295	1.2
CLEVELAND	876	751	6,862	10.2	60,212	89.8	67,074	2.3
COLUMBUS	471	540	1,931	4.4	41,859	95.6	43,790	1.5
DALLAS	680	844	2,415	3.3	71,363	96.7	73,778	2.5
DENVER	494	515	6,014	14.3	36,122	85.7	42,136	1.4
INDIANAPOLIS	476	745	2,263	8.2	25,489	91.8	27,752	0.9
JACKSONVILLE *	201	529	12,700	22.4	43,945	77.6	56,645	1.9
KANSAS CITY	476	507	1,818	6.1	27,871	93.9	29,689	1.0
MEMPHIS	498	624	9,419	17.0	45,924	83.0	55,343	1.9
MILWAUKEE	741	717	5,068	9.0	51,230	91.0	56,298	1.9
NEW ORLEANS	628	593	7,571	17.2	36,427	82.8	43,998	1.5
PHONEIX	439	582	NR	--	----	--	28,433	1.0
PITTSBURGH	604	520	8,303	25.3	24,455	74.7	32,758	1.1
SAN ANTONIO	588	654	4,590	12.4	32,542	87.6	37,132	1.2
SAN DIEGO	573	697	12,739	23.0	42,638	77.0	55,377	1.9
SAN FRANCISCO	740	716	11,331	27.0	30,648	73.0	41,979	1.4
SEATTLE	557	531	7,354	17.8	33,932	82.2	41,286	1.4
ST. LOUIS	750	622	6,859	31.4	14,981	68.6	21,840	0.7
WASHINGTON, D.C.	764	757	4,161	7.5	51,623	92.5	55,784	1.9
CLASS 3 CITIES	9,653	10,567	181,239	22.4	624,974	77.6	936,668	31.6
AKRON	290	275	2,357	14.0	14,466	86.0	16,823	0.6
ATLANTA	487	497	8,366	23.3	27,610	76.7	35,996	1.2
AUSTIN	187	252	NR	--	----	--	23,920	0.8

[1] Based upon total secondary enrollment for city.

[2] Based upon total secondary enrollment for all cities listed.

* (Duval Co.)

TABLE 1.1 SECONDARY ENROLLMENT DATA FOR MAJOR U.S. CITIES

CITIES WITH POPULATION OVER 250,000	POPULATION IN THOUSANDS		SECONDARY ENROLLMENT					
			VOCATIONAL [B]		NON-VOCATIONAL		TOTAL [C]	
	1960 [A]	1970 [A]	NUMBER	% [1]	NUMBER	% [1]	NUMBER	% [2]
BIRMINGHAM	341	301	5,970	30.9	13,366	69.1	19,336	0.6
BUFFALO	533	463	NR	--	----	--	31,742	1.1
CINCINNATI	503	453	3,630	10.7	30,150	89.3	33,780	1.1
EL PASO	277	322	5,036	19.4	20,953	80.6	25,989	0.9
FORT WORTH	356	393	7,746	20.2	30,615	79.8	38,361	1.3
HONOLULU	294	325	13,514	21.6	62,904	82.3	76,418	2.6
JERSEY CITY	276	261	5,653	63.5	3,246	36.5	8,899	0.3
LONG BEACH	344	359	4,563	14.0	28,011	86.0	32,574	1.1
LOUISVILLE	391	361	3,952	17.0	19,325	83.0	23,277	0.8
MIAMI *	292	335	16,368	15.0	93,075	85.0	109,443	3.7
MINNEAPOLIS	483	434	7,988	25.5	23,375	74.5	31,363	1.0
NASHVILLE	171	448	NR	--	----	--	39,426	1.3
NEWARK	405	382	8,364	43.3	10,935	56.7	19,299	0.6
NORFOLK	305	308	6,683	26.5	18,489	73.5	25,172	0.8
OAKLAND	368	362	4,963	17.6	23,202	82.4	28,165	1.0
OKLAHOMA CITY	324	366	3,056	10.0	27,419	90.0	30,475	1.0
OMAHA	302	347	4,355	17.5	20,472	82.5	24,827	0.8
PORTLAND	373	383	16,561	67.5	7,979	32.5	24,540	0.8
ROCHESTER	319	296	NR	--	----	--	18,188	0.6
SACRAMENTO	192	254	2,845	13.4	18,437	86.6	21,282	0.7
SAN JOSE	204	446	7,406	43.7	9,528	56.3	16,934	0.6
ST. PAUL	313	310	3,830	16.6	19,259	83.4	23,089	0.8
TAMPA **	275	378	25,399	53.5	22,044	46.5	47,443	1.6
TOLEDO	318	384	4,748	17.2	22,827	82.8	27,575	0.9
TUCSON	213	263	NR	--	----	--	17,179	0.6
TULSA	262	332	1,796	5.1	33,313	94.9	35,109	1.2
WICHITA	255	277	6,070	20.2	23,974	79.8	30,044	1.0
TOTAL IN ALL CITIES	40,267	42,300	512,125	21.4	1,885,697	78.6	2,962,387	100.0

[A] *The Pittsburgh Press World Almanac*. Pittsburgh: The Pittsburgh Press, 1972.

[B] U.S.O.E.-3138 Reports. Fiscal year ending June 30, 1970.

[C] *Statistics of Local Public School Systems, Fall 1969, Pupils and Staff*. Washington, D.C.: Government Printing Office, 1971.

* (Dade Co.)

** (Hillsborough Co.)

THE MANPOWER CONVERSION EQUATION

To attempt to evaluate the effectiveness of a complex process, such as public secondary vocational education, immediately raises questions about goals, objectives and standards. Evaluation implies a comparison of what is with what should be. Unfortunately, there is no officially sanctioned body of statements that describe what should be, unless one interprets the intentions of the Vocational Education Act of 1965 and the 1968 Amendments to that act. We lacked, at the time Project Metro was undertaken, a comprehensive set of vocational education goals and measurable objectives that had the authority of originating with or being officially endorsed by the U. S. Office of Education. For that reason, it was necessary to develop a theoretical model from which a body of basic vocational education objectives could be generated deductively. The result was what we call the Manpower Conversion Equation. It has been described in previous ESRI publications and discussed at length in Grant Venn's excellent book, Man, Education and Manpower. To set the stage for what follows, we shall describe the basic concept again rather than send the reader off to other published sources.

The theoretical starting point for that phase of Project Metro that concerns vocational education is the manpower conversion model shown in Figure 1.1. The model shows public vocational education to be one of a three channel total system for the conversion of unskilled potential manpower to skilled available manpower. The two other channels are (1) manpower development and training programs in business and industry and (2) private and proprietary schools that offer occupational programs. The major channels can be further sub-classified, but such detail will only cloud the basic concept at this point.

The basic idea of the model is simple. It states that the primary objective of public and private systems for manpower development, taken as a collective whole, is to recruit and convert undeveloped and underdeveloped manpower resources into skilled manpower resources in sufficient kinds and numbers so that the output will match the skilled manpower requirements of the economy served. In short, supply should equal demand for skilled manpower if the system is to be in balance.

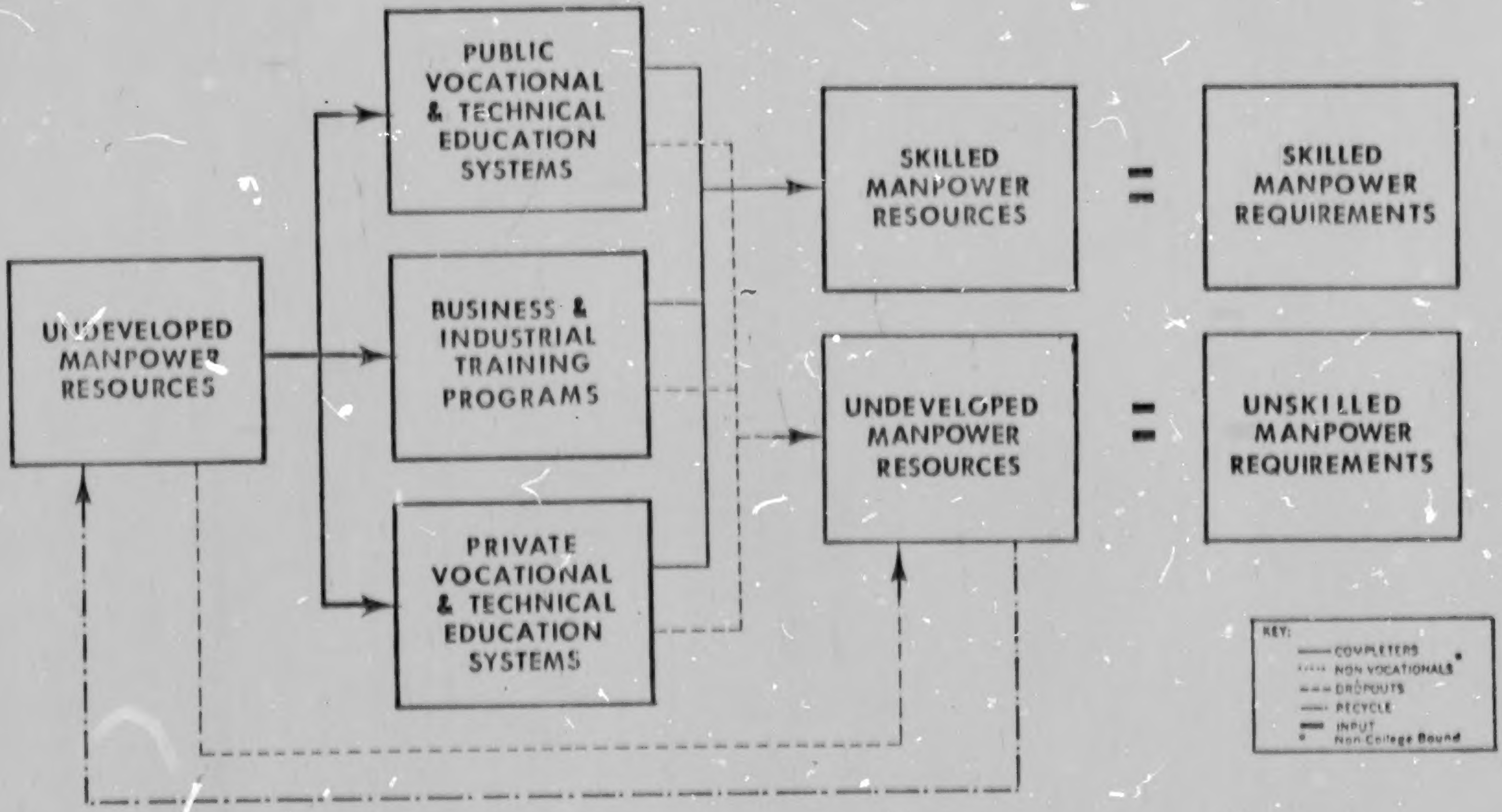
PUBLIC VOCATIONAL & TECHNICAL EDUCATION SYSTEMS
BUSINESS & INDUSTRIAL TRAINING PROGRAMS
PRIVATE VOCATIONAL & TECHNICAL EDUCATION SYSTEMS
UNDEVELOPED MANPOWER RESOURCES
SKILLED MANPOWER RESOURCES
=
SKILLED MANPOWER REQUIREMENTS
UNDEVELOPED MANPOWER RESOURCES
=
UNSKILLED MANPOWER REQUIREMENTS
KEY:
COMPLETERS
NON VOCATIONALS*
DROPOUTS
RECYCLE
INPUT
* Non College Bound

FIGURE 1.1 THE MANPOWER CONVERSION EQUATION. The primary objective of the collective system is to convert undeveloped manpower resources in sufficient quantity and kind so that the output will approach equality with the skilled manpower requirements of the expanding U.S. economy.

A serious imbalance between the collective system's output of developed manpower and the requirements of the economy means either too many with occupational skills not in demand and/or too few people with the occupational skills that are in demand. The former implies an unemployment problem for large numbers of people and the latter implies an economy hampered by unfulfilled manpower requirements. In actuality, both conditions may prevail simultaneously in the same labor market area.

Ideally, a balance in the equation implies that for every person with a newly developed occupational skill, there will be a job available in his labor market area in need of his skills, and conversely, for every job opening requiring a given kind of occupational skill, there will be a person available who has the necessary skills. The ideal balance is, of course, only a theoretical goal. In actuality, no such perfect balance is ever likely to be achieved. This does not invalidate the theoretical model. Many of our national policies aim at theoretical, ideal objectives and serve a useful policy-orienting purpose. Our national full-employment policy is an excellent example. Indeed, the manpower conversion model is an embodiment of the national full-employment policy. Moreover, it ties public vocational education to that policy and at the same time to the manpower requirements of the economy.

Let's now examine the model in more detail. At the left, undeveloped manpower resources represent all those persons from the pre-vocational period of high school to any stage of adulthood prior the point at which persons are unlikely to develop occupational skills who have either no occupational skills or low-level occupational skills. The model indicates that, depending upon the situation of such persons, they may enter into one of three major channels for manpower development, for occupational education or training. Those who do not undergo such education or training continue in the labor market as an undeveloped manpower resource in an economy that has decreasing need for occupationally unskilled persons. The model further indicates that those who do not successfully complete their occupational training revert back to essentially undeveloped manpower resources.

For public vocational education, the model represents a challenge. Unless public vocational education increases its role as a substantial supplier of occupationally skilled manpower, it will diminish in importance as a major source of manpower development.

The model implies, among other things, that vocational educators need to adopt a new perception of their responsibilities. Vocational education will be strengthened to the extent that the sources of funds -- in the final analysis, the public -- perceive vocational education as a vital and growing resource for the development of needed skilled manpower. Vocational education has two clients to serve, namely the vast and growing number of occupationally undeveloped manpower and the industry and business employers in need of skilled manpower. In short, vocational educators -- or more correctly, those who have administrative authority to operate public vocational education programs -- must begin to see themselves as managers of a manpower conversion system in competition with other resources for the development of skilled manpower. It is doubtful that many educators at the secondary level have grasped the significance of this concept. Many, if not most, are still operating vocational programs on the basis that they must supply a relevant educational opportunity for those who lack the ability or motivation to pursue higher education. This is essentially a negative view of their role. It does not plant their feet firmly in the business of manpower development with the result that neither client -- students and employers -- are served effectively.

Let's now relate the manpower conversion model more closely to the problem of vocational education in the public education systems of major cities. The undeveloped manpower resources to which Figure 1.2 refers can be more specifically identified as those students who are not strong candidates for higher education via the academic or college preparatory curriculum. These are the potential candidates for recruitment into vocational programs. This does not mean such students should be subject to forced recruitment into vocational programs. Obviously, that cannot be. Nor does it mean that those who are successfully recruited into vocational programs should be subject to a curriculum that precludes a later decision for higher education. Indeed, vocational education should be so structured to permit a decision in either direction -- employment or continued education -- after high school. We simply say that there is a definable target group for secondary vocational education.

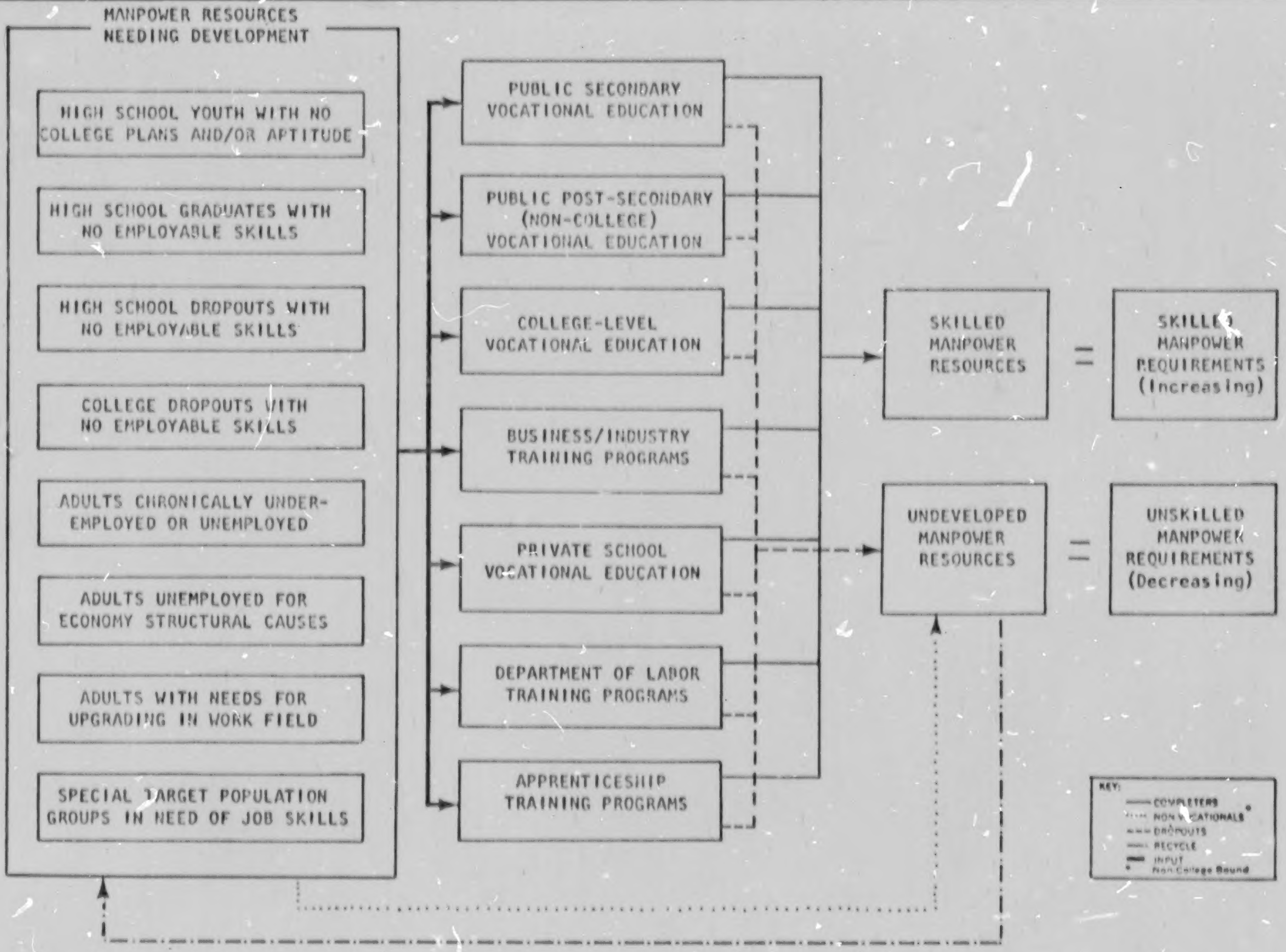
MANPOWER RESOURCES NEEDING DEVELOPMENT
HIGH SCHOOL YOUTH WITH NO COLLEGE PLANS AND/OR APTITUDE
HIGH SCHOOL GRADUATES WITH NO EMPLOYABLE SKILLS
HIGH SCHOOL DROPOUTS WITH NO EMPLOYABLE SKILLS
COLLEGE DROPOUTS WITH NO EMPLOYABLE SKILLS
ADULTS CHRONICALLY UNDER-EMPLOYED OR UNEMPLOYED
ADULTS UNEMPLOYED FOR ECONOMY STRUCTURAL CAUSES
ADULTS WITH NEEDS FOR UPGRADING IN WORK FIELD
SPECIAL TARGET POPULATION GROUPS IN NEED OF JOB SKILLS
PUBLIC SECONDARY VOCATIONAL EDUCATION
PUBLIC POST-SECONDARY (NON-COLLEGE) VOCATIONAL EDUCATION
COLLEGE-LEVEL VOCATIONAL EDUCATION
BUSINESS/INDUSTRY TRAINING PROGRAMS
PRIVATE SCHOOL VOCATIONAL EDUCATION
DEPARTMENT OF LABOR TRAINING PROGRAMS
APPRENTICESHIP TRAINING PROGRAMS
SKILLED MANPOWER RESOURCES
=
SKILLED MANPOWER REQUIREMENTS (Increasing)
UNDEVELOPED MANPOWER RESOURCES
=
UNSKILLED MANPOWER REQUIREMENTS (Decreasing)
KEY:
COMPLETERS
NON VOCATIONALS *
DROPOUTS
RECYCLE
INPUT
* Non College Bound

Figure 1.2 A FURTHER DEVELOPMENT OF THE MANPOWER CONVERSION EQUATION (See Text for Details).

The other end of the equation implies that vocational education will be responsive to labor market requirements as projected for the short and long term in the metropolitan area served. The public school systems have a definable labor market for which to develop or obtain from other sources manpower requirement projections, and that labor market is the metropolitan area served by the school system. We have repeatedly established that there is a very low percentage of major city out-migration of secondary vocational program graduates. Less than five percent of those that are employment-bound make a residential change out of the city in which they completed their vocational education within the first several years after high school. It is this fact more than anything else that defines geographically the employer community that should be served by public vocational education. It makes little sense to develop vocational curricula for occupations for which there is no local manpower requirement. The implication is clear. Those in charge of secondary vocational education in major cities must study and be knowledgeable about the changing labor market requirements so that vocational curriculum offerings may be tied rationally to the labor market served.

The model has a further implication for the vocational curriculum planner, and that is an improved awareness of what the other major sources of manpower development are doing in the same area. Effective planning means taking into account other sources of manpower development and possibly even taking advantage of the occupational skill development resources outside of the public school system.

The preceding thumbnail sketch of the manpower conversion model and its implications for public vocational education suffices as an introduction. Let's now turn to the more immediate purpose for which the manpower conversion model was developed, namely to deductively generate a rational set of basic measurable objectives against which the effectiveness of major city vocational education may be evaluated.

THE BASIC EVALUATION OBJECTIVES

The manpower conversion model generates six basic objectives that provide a collective framework for evaluating the effectiveness of public vocational education systems as suppliers of skilled manpower. They are not the only objectives that should guide the management of secondary vocational education. However, they can't be ignored if one accepts the manpower conversion model as a theoretical framework for relating public vocational education to the problem of manpower development, supply and demand. The six objectives are as follows:

1. VOCATIONAL ENROLLMENT GROWTH. To show a continuing increase in the percentage of non-college bound youth enrolled in vocational programs at the secondary or post-secondary level.

   Those who complete a secondary education and enter the labor market without an occupational skill are by definition of the manpower conversion model in the category of undeveloped manpower resource, and will remain so until such time as they enter and complete occupational training via one or more of the major channels for skilled manpower development. It should be the objective of secondary vocational education, operating on a voluntary principle as far as students are concerned, to decrease the output of employment-bound graduates who lack a saleable occupational skill. Career orientation and guidance programs should serve to increase the enrollment of such students into vocational education programs. They are the target population from which the major share of vocational education enrollment growth must come. The end effect will be to increase the supply of graduates who leave with entry-level occupational skills.

2. VOCATIONAL OFFERINGS GROWTH. To show a continuing increase in the range and diversity of vocational curriculum offerings until such offerings adequately reflect both the manpower requirements of the metropolitan area that can be served at the secondary level and the range of talents and interests in the student population served.

   A narrow range of vocational offerings serves neither the employer community nor the students. There must be a range of vocational curricula within the basic program areas, i.e. trade and industrial, business education, gainful home economics, etc.

so that all levels of student capability can be accommodated, and there should be a diversity of choice at any capability level so that the interests of students can be served. Such range is essential to the achievement of the enrollment growth objective, and as we shall see, to the other basic objectives.

3. VOCATIONAL CURRICULUM HOLDING POWER. To show continuing improvement in student holding power so as to increase the percentage of those who complete the vocational curriculum of their choice.

Presently, in all major cities, a significant percentage of students do not complete the vocational curriculum started. Some of these drop out of school. Others continue but in another vocational curriculum with the result that they do not have an entry-level skill in either occupation when they complete school. Still others continue in a non-vocational curriculum which leaves those that are later employment-bound without a saleable occupation skill. Such dropouts represent losses of entry-level skilled manpower to the economy and possible chronic low-level occupational skill status to the student. Obviously, it is to the advantage of all concerned to improve vocational curriculum holding power. The reasons for student dropouts are complex and many. One deserves mention, however, because it relates to the present set of objectives. Students whose interests and capabilities are not compatible with the vocational course in which enrolled are less likely to complete the course. Thus, adequacy of the range and diversity of vocational course offerings is related to holding power.

4. OCCUPATIONAL KNOWLEDGE AND SKILL. To show continuing improvement in the percentage of graduates who have attained at least the minimum standards of occupational knowledges and skills required for entry into the occupational field of study.

Earlier findings (2) indicated that between 15 and 20 percent of vocational program graduates would not be recommended by the vocational instructors for employment in their field of study. Obviously, graduates who have not achieved minimum standards of competency have not acquired an entry-level occupational skill. They are not a skilled manpower resource, and their entry into the labor market without a saleable skill reflects upon the effectiveness of public vocational education. Clearly, the vocational educator must be concerned with reducing the output of such students. Employers who experience dissatisfaction with inadequately trained vocational program students will soon look elsewhere for recruits.

5. MOTIVATION TO ENTER OCCUPATION. To show continuing improvement in the percentage of graduates and completers who are motivated to enter the field for which trained or at least a highly related field to which their newly acquired occupational skills can be transferred.

The objective follows logically from the manpower conversion model. Obviously, if there is to be a balance between supply and demand, then a high percentage of the output must be motivated to seek employment in the field of study. If half of the physicians rejected the medical profession upon completion of training, we would suspect that there was something wrong. The same reasoning applies to turning out carpenters, electricians, auto mechanics, etc. only to have large percentages not interested in employment in their field of study. Each such case represents a loss of entry-level skilled manpower and in various degrees a waste of vocational education investment. Those who do not pursue further a career related education and who enter the labor market do so without the benefit of occupational skill.

A prior ESRI study (9) indicated that as high as twenty-five percent of the vocational graduates leave school without any intention or desire to enter the field for which trained. For most of these, that was not their attitude when they first enrolled in the vocational course of their choice.

6. PLACEMENT PERFORMANCE. To show continued improvement in the percentage of qualified and interested vocational program graduates who are successfully placed into the occupations for which trained or at least highly related occupations to which their newly acquired occupational knowledges and skills may be transferred.

Qualified graduates who want to enter the field for which trained, but do not find jobs in such fields in the weeks and months following high school completion turn to jobs outside of their field of training. Often in the major cities, the jobs are there but the inexperienced new job hunters can't find them. Each case of a graduate who became discouraged and took a job out of his field of study represents a loss of entry-level trained manpower. Once lost to the field for which trained, they rarely return. Obviously, if vocational education operates within the framework of the manpower conversion model, then it must assume greater responsibility for the placement of its graduates.

The above six objectives, logically derivable from the manpower conversion model, are recommended to all public vocational education systems. They comprise a basic set of objectives that can readily be converted into measurable objectives against which the effectiveness of public vocational education may be evaluated. They represent a set of policy statements which when activated can only serve to strengthen vocational education and its image in the eyes of the employer community, the students in the public schools and their parents who greatly influence their career decisions.

THE PROBLEM OF EFFECTIVENESS EVALUATION

WHY EVALUATE EDUCATION EFFECTIVENESS

The pressure for evaluating the effectiveness of secondary vocational education -- or for that matter, any level and kind of public education -- is a relatively recent thing. Evaluation became one of the in concepts during the sixties. That is not to say that there was no concern with the effectiveness of public education before. Concern about whether education is achieving its goals and objectives has been part and parcel of the dialogue between educators and between critics and educators from the beginning of educational professionalism. What's wrong with American education has always been a timely topic for conferences and publications. In recent years, however, the concern has taken a step upward from the verbal drivel level to the level of the "planned evaluation research" project.

During the sixties, there has been a massive popular concern about the quality of education in the United States. Myth has it that the Russian Sputnick was responsible for outpouring of criticism. That's overly simplistic, but be that as it may. We do know that the worry about the quality of American education soon induced a not uncommon American reaction, namely, spend more money. And that was what was done. Ever since, there have been sharply rising increases in local, state and Federal expenditures for public education. Figure 1.3 indicates the rise of education costs during the sixties.

At the grass roots level, the taxpayers have been building up the kinds of resistances and pressures that inevitably force questions to be raised, like: Has public education improved substantially for the better with the increased hundreds of millions of dollars? What are we getting for all this money? Are children reading any better? Etcetera ad infinitum. And suddenly there is this pressure for evaluation to prove to the legislators who must appropriate the monies that either (1) things are going better on the educational scene than what appears in the newspapers or (2) those things that are not going so well have been identified and are in the process of being corrected with the help of additional appropriations. Of course, there is always the veiled threat that if things are not set right or at least demonstrably improved, a disgruntled public will force a policy of tighter purse strings at all levels of government.

This has been essentially a good development because it has reminded us again, that education management is a continuous problem solving process and that evaluation is an integral part of that process.

THE PROBLEM OF OBJECTIVES

The concept of evaluating the effectiveness of any system implies a set of objectives toward which the system should be making progress. Such objectives may be loosely stated, e.g. to improve the placement of vocational graduates in the field for which trained or precisely stated, e.g. to increase by ten percent the percentage of vocational graduates placed into the field for which trained. Either kind of statement implies a sense of direction, an objective toward which one can evaluate progress and permit

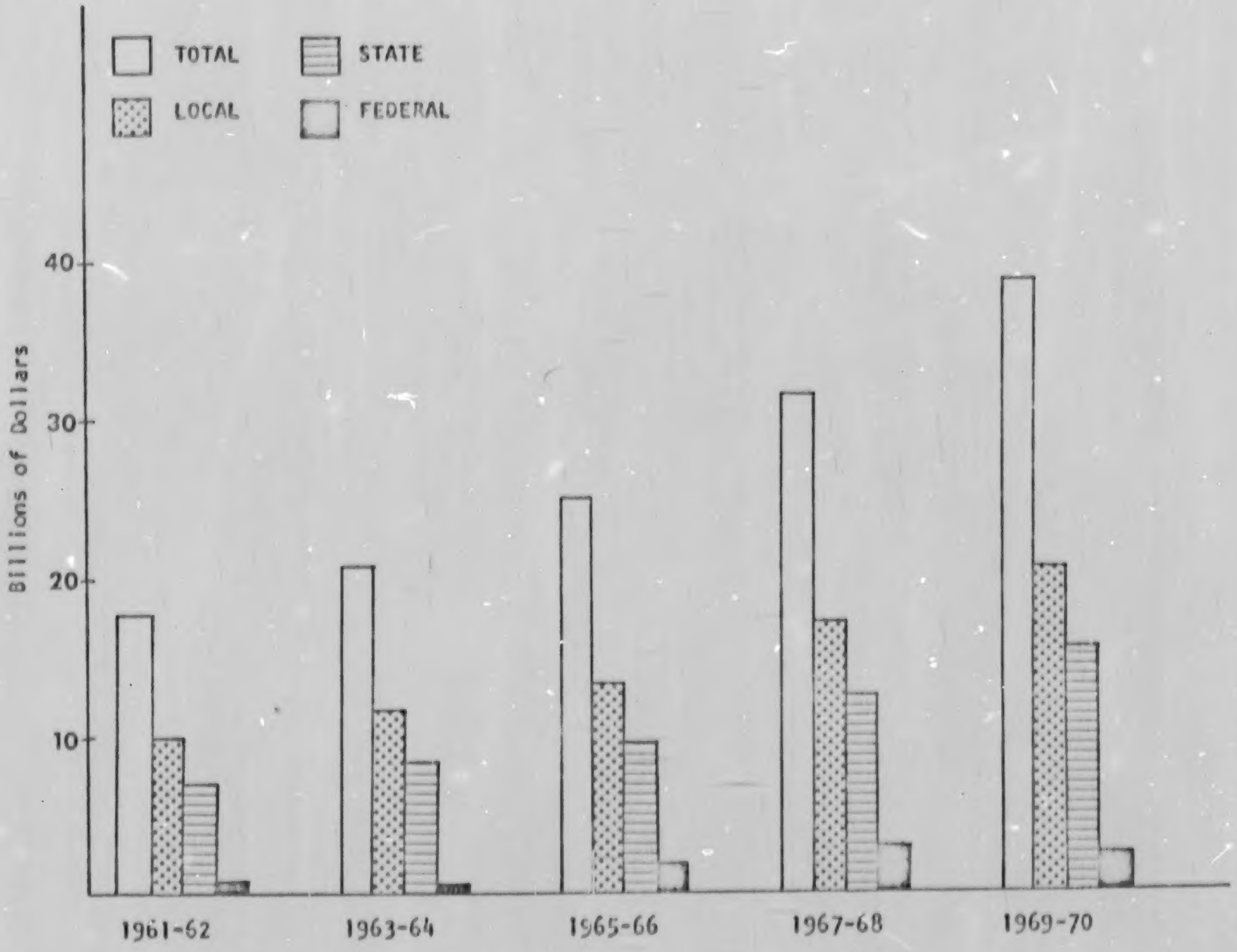

Figure 1.3 A DECADE OF LOCAL, STATE AND FEDERAL EXPENDITURES FOR PUBLIC SECONDARY EDUCATION

statements about system effectiveness in terms of how well the objectives are being achieved. Also, either kind of statement implies an agreement to collect, analyze and report data that will describe quantitively the degree to which progress toward the objectives is being made. That is not the way the world of education operates. Effectiveness evaluation data is rarely an integral, operational part of the educational process.

None of the Project Metro cities had a comprehensive set of measurable objectives to provide a directional framework for the management of their vocational programs. We are not saying that superintendents and vocational education directors have a problem in stating the purposes of vocational education. Statements of purpose, such as, to educate youth for the world of work, to provide students with salable occupational skills, to develop constructive work habits and attitudes and similar statements, come easily, particularly at the verbal level. The problem is that such statements never undergo the translation to a set of measurable objectives as discussed earlier. Hence, there is no internal basis for evaluating vocational education effectiveness in most major city school districts. In a sense, this condition is not uncomfortable to the educator-administrator because it means one less set of specifics for which he can be held responsible and accountable. It also means he has no way of knowing whether his vocational education programs are becoming more or less effective.

With that background, it should be clearly understood that the objectives herein adapted as a framework for collecting, analyzing and interpreting effectiveness evaluation data are not measuring what the educators in major cities would endorse. We shall be looking at the data from the standpoint of the objectives derived from the manpower conversion model and such second and third order objectives as may be logically derived from the six basic objectives set forth earlier. When data presents a situation that conflicts with achievement of Project Metro adopted objectives, we shall say that a problem exists. The education administrators of the Project Metro cities are likely to react to the same data somewhat differently, i.e. they may simply not acknowledge that a problem exists because they don't subscribe to our initial set of objectives. The same may be said for other local, state and federal vocational educators who disagree with the initial set of objectives adapted herein for vocational education data.

THE PROBLEM OF DATA

One needs data to evaluate effectiveness. Most of the kinds of data required to evaluate effectiveness in terms of the manpower conversion model was either not available in any form or only available in a raw, unconverted form which would have presented massive expenditures of time and money, even if the cities had been inclined to make such data available. Thus, for example, many of the Project Metro cities could not describe their vocational program output in terms of specific curricula because it was not the practice to aggregate data in this manner. Similarly, few had dropout rates that were relatable to the different vocational programs or for that matter, to vocational students as a group. Most of the cities were not doing follow-up surveys of their vocational graduates on an annual basis and some had not done such surveys at all on a system-wide basis. Even the relatively simple problem of trying to describe vocational curriculum enrollment growth in terms of sex or race ran into the common response, we don't keep records that way.

We concluded that the major cities do not maintain an on-going body of data that is useful for evaluating the effectiveness of their vocational education programs. This condition, of course, relates to the absence of officially-adopted vocational education objectives. Without such objectives, there was no reason for much of the data relevant to effectiveness evaluation. Oddly enough, their computer centers turn out vast amounts of data, the bulk of which is completely unrelated to any concept of management by objectives.[1]

We also concluded that it was not primarily a matter of not knowing what kinds of evaluation data should be collected on a regular operational basis or of not having the personnel and/or equipment capability for collecting and reporting such data that explained the absence of readily available evaluation data. The truth is that there is no great desire to know. Indeed, one

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[1] In one school system, high school principals receive (and throw away) computer printouts listing by name and other information each student who has been absent from each of his classes for a given week. The schools, of course, already have the data. Indeed, they supply the computer center with the data so that the computer center can report back to the school the same raw data provided by the school.

can make a case for the existence of a great desire not to know. But why bother? Educators are not the only administrators who have an intuitive distrust for having data around that may be an embarrassment. Sometimes, the best way to withhold information is not to collect it in the first place.

THE PROBLEM OF TRENDS

Studies that presume to evaluate the effectiveness of education, such as Project Metro, seldom collect data that spans several years and thereby permit trend analysis. This is wrong. Data for a single point in time, like the follow-up survey of a given graduating class, can't tell us anything about what *progress is being made toward the achievement of educational objectives.* Such data only tells part of the story. The most important question, that about progress toward specified objectives, is left unanswered. Project Metro is essentially a one-shot stab at evaluation, and the reader should be aware of the serious limitation that is implied. We can't draw any conclusions about changes, trends, performance improvement over past years. Even our Class of '68 are not comparable to the Class of '70 findings. The Class of '68 left school when the U. S. economy was still riding high; the Class of '70 went in search of jobs in a recession economy. The economy, over which the school systems have no control, greatly influences the post-high school outcomes experienced by the graduates. For example, the percentage of graduates who find jobs in the field for which trained always drops when there is a downturn in the economy. This phenomenon makes it all the more important that critical evaluation data, i.e. data related to measuring progress toward educational goals, be collected annually to permit trend analysis over the years.

The very process of collecting data annually to assess progress toward stated objectives would, if not swept under the rug, alert educators to periods of no change or even retrogression which call for special efforts by the education managers to make better progress toward educational objectives. However, that is not the way most educators think. A trend that may provide evidence that improvement is occurring may also provide evidence that there is no improvement. So why risk having potentially embarrassing graphs hanging around. That's part of the reason why Project Metro has no trend data to offer.

CHAPTER 2. THE FOLLOW-UP SURVEY METHODOLOGY

THE SURVEY SAMPLING PROCEDURES

SELECTION OF THE MAJOR CITIES

The cities selected for inclusion in Phase II of Project Metro included the thirteen cities that participated in Phase I plus eleven additional cities selected from a list of recommended cities supplied by the Office of Program Planning, Budget and Evaluation. The cities comprised a sample selected on the basis of two stratifications, namely size of city population and geographical distribution.

With the absence of any direct help from the U. S. Office of Education, it proved to be a time-consuming problem to convince the Phase I participant cities to continue with the study (Detroit dropped out) and the newly selected cities to join the study (Los Angeles and Miami declined). All cities were visited for personal discussions, and some had to be revisited more than once. It was several months before the last city agreed to participate. The effort expended in getting cities to participate proved to be costly and caused considerable project delay.

Strictly speaking, the sample of cities is not a random selection. However, the sample included 22 of the then 56 cities with a population above a quarter of a million. On that basis, we are confident that the generalizations and conclusions can be applied to the population of cities from which the surveyed cities were selected. Those who are more purist-minded about the necessity of a random sampling procedure in a situation such as the one that confronted us may wish to limit our generalizations to the actual cities surveyed.

The participant cities were as follows:

Class 1. Above 1,000,000 in population

Chicago
Houston
New York
Philadelphia

Class II. Between 500,000 and 1,000,000

Atlanta
Baltimore
Boston
Cleveland
New Orleans
Pittsburgh
San Francisco
Seattle
St. Louis
Washington, D.C.

Class III. Between 250,000 and 500,000

Birmingham
Louisville
Minneapolis
Newark (Essex County)
Norfolk
Omaha
Portland
Rochester

SELECTION OF THE SCHOOLS

The study did *not* sample schools. The follow-up survey included vocational program graduates from *all* schools in each of the participant cities. In our initial contacts with the major city school systems, we agreed to provide each participant city with the results obtained from its own vocational graduates. Rather than be caught up with the politics of what schools would be sampled and expose ourselves to pressure to sample certain schools and not others, we decided to include all secondary schools with vocational programs, except the few that were exclusively for mentally retarded and/or handicapped students.

Only one city had second thoughts about this arrangement. Minneapolis excluded vocational program graduates from its comprehensive schools from the follow-up survey. In effect, only one school, Minneapolis Area Vo-Tech, is represented in the Minneapolis *vocational* follow-up survey data. The data was retained in the present report because of the relatively small number of cases involved. The reader inclined to calculate his own medians may wish to strike the Minneapolis data from the tables that provide the individual city survey data.

The total sample of graduates was obtained from 449 secondary schools in the twenty-two cities. Included among these schools were 4 Area Vocational Technical Schools in Essex County, New Jersey. These were included because the Newark school system had an arrangement whereby a large proportion of their vocational students attended the county schools.

SELECTION OF THE CLASS YEAR

The original agreement with the U. S. Office of Education was to survey both Class of '69 and Class of '70 vocational graduates from the selected cities. Together with the Class of '68 follow-up survey results, that plan would have provided us with three consecutive data years in twelve of the cities and two consecutive years for the newly added cities. It became quickly apparent in our spring, 1970 contacts with the cities that it would be impossible to go after the Class of '69 graduates within the available project budget. Most of the cities did not have accessible records other than individual student cumulative records, in some cities already relocated into district archives, for the identification of vocational program graduates. Even had there been resources to go through the total Class of '69 individuals to ferret out those who were vocational students and had the school districts been willing to undertake the monumental clerical task involved, it still would not have provided the necessary data in many of the cities. In some, there is no record identification of a vocational student as such; one would have to analyze the individual subjects recorded in the cumulative record to determine the student's status. Most cities included in the survey could not give a precise count of the number of vocational graduates from each vocational curriculum offered. With that being the situation, we decided to limit the survey to the Class of '70 because the students were still in school and, we thought, accessible to obtain the essential pre-survey information.

SELECTION OF THE GRADUATES

The initial issue concerning the selection of graduates was whether to construct a survey sample or include all graduates for survey. We decided in favor of the latter for several reasons:

1. Relatively little additional cost. The total cost of a follow-up survey is not linearly related to the number of graduates surveyed. The unit cost of almost everything that goes into the survey,

except the postage, decreases as the number of cases increases. The relatively little additional cost involved did not warrant going to a sampling strategy for cost reasons alone.

2. Elimination of sampling controversy. When a study yields results that are not what some people wish to see, the first tactic is to try to invalidate the results by attacking the study methodology. The sampling procedure is usually the first target for criticism. We decided to forestall any criticism of the study findings because of alleged improper sampling by eliminating a sampling approach entirely.

3. Requirement for large numbers. The anticipated analyses of data into many subclassifications with consequent reduction of numbers of cases in comparison cells made it imperative to start with a very large number of cases, particularly since we knew from past experience that the response rate was very unlikely to exceed fifty percent. It seemed prudent to survey all to assure that we would end up with an adequate number of cases for all planned analyses.

4. Control of who gets surveyed. Any sampling approach that leaves control of the sampling procedure to the school districts and schools runs the risk of introducing an unknown bias into the data. Asking an instructor to select every Nth graduate from his alphabetized class list to generate a list of names for follow-up survey does not mean he will follow that random sample procedure.

The above reasons ruled out a sampling approach. The plan was to survey all graduates. New York City became an exception for reasons that will be explained later.

The initial procedure planned to obtain the necessary pre-survey information about the Class of '70 graduates was to have the graduates-to-be complete the form shown on the next page in April, 1970. We reasoned that we would have a uniform body of up-to-date information about the universe of graduates in all cities. The forms would be uniquely printed for each city, giving school and course codes on the reverse side of the form as shown on the

Cleveland Public Schools

PUPIL PERSONNEL DATA FORM

SENIOR SECONDARY SCHOOL STUDENTS ONLY

(See Reverse Side for General Instructions)

Form No. 1

▼ SKIP SPACE BETWEEN FIRST AND LAST NAME

▼ SKIP SPACE BETWEEN WORDS OR WORDS AND NUMBERS IN ADDRESS

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CLEVELAN

TEACHER INSTRUCTIONS

Please instruct your students to:

- [illegible]
- [illegible]
- [illegible]
- [illegible]

STUDENT INSTRUCTIONS

1. NAME AND ADDRESS. [illegible] ZIP CODE. [illegible]
2. SEX AND RACE. Mark the box that tells your sex and race.
3. SPANISH LANGUAGE. [illegible]
4. SCHOOL COURSE CODE. • Your teacher will give you a 3 digit school number to record. • Select your course code from the first group of courses (Non-vocational) if you have no vocational or business major. If you have a vocational or business course major, go to the appropriate group of courses and select the code that comes closest to your course major, even though you are also in the academic (college preparatory) program. [illegible]
5. YEARS OF SUBJECTS COMPLETED. If you have had no years of a listed subject, leave the column blank. If you have had more than 5 years, record 5 years.
6. YOUR AFTER HIGH SCHOOL PLANS. Mark the box that describes your plans. If you plan a full time job be sure to mark whether you have a job lined up or not. If you plan full time college, mark whether you have been accepted or not.
7. FIELD OF EMPLOYMENT. If you plan to work after high school, mark the box that indicates how related your work will be to your high school vocational course.

* * *

SCHOOL AND COURSE CODES

FIND YOUR SCHOOL CODE BELOW AND RECORD IN BOX 4.

377	COLLINWOOD
378	EAST
379	GLENVILLE
380	JAMES FORD RHODES
381	JOHN ADAMS
382	JOHN F. KENNEDY
383	JOHN HAY
384	JOHN MARSHALL
385	LINCOLN
386	SOUTH
387	WEST
388	EAST TECHNICAL
389	JANE ADDAMS VOC.
390	MAX S. HAYES VOC.
391	THOS. EDISON OCC.
392	WEST TECHNICAL

SELECT YOUR COURSE CODE BELOW AND RECORD IN BOX 4.

NO.	NON-VOCATIONAL
997	ACADEMIC/GENERAL

IF YOUR VOCATIONAL COURSE MAJOR IS NOT LISTED BELOW, WRITE THE NAME OF THE COURSE HERE ______________________, AND LEAVE COURSE NUMBER IN BOX 4 BLANK.

NO.	TRADE AND INDUSTRIAL
225	AIRCRAFT
215	APPLIANCE REPAIR
010	AUTO BODY REPAIR
011	AUTO MECHANICS
170	BODY SHOP
035	BUILDING MAINTENANCE
120	CAFETERIA
036	CARPENTRY
107	CUSTOM SEWING
062	DIESEL
069	DRAFTING
087	ELECTRICITY/ELECTRONICS
155	ENGINE LATHE OPERATION
123	FOOD SERVICES
128	FOUNDRY
131	GRAPHIC COMMUNICATIONS
106	HOUSE & REMODELING
251	INDUSTRIAL POWER SEWING
155	MACHINE TRADES
066	MACHINE DRAWING
173	MILL & CABINETRY
243	OCCUPATIONAL WORK EXP.
237	PATTERNMAKING
204	PRINTING
015	SERVICE STATION SALES
220	SHOE REPAIR
226	SMALL ENGINE REPAIR
122	TEA ROOM OR RESTAURANT
249	WELDING
173	WOOD PRODUCTION
242	WORK EXPERIENCE: BANKS

NO.	AGRICULTURE
446	CO-OP HORTICULTURE/LANDSCAPIN
445	SPECIALIZED HORTICULTURE

NO.	HEALTH
505	MEDICAL LABORATORY

NO.	BUSINESS/OFFICE/COMMERCIAL
600	ACCOUNTING OCCUPATION
645	CLERICAL SERVICES
625	CLERK-TYPIST
635	CO-OP OFFICE EDUCATION
606	DATA PROCESSING
672	STENO/TYPIST

NO.	DISTRIBUTIVE EDUCATION
700	DISTRIBUTIVE EDUCATION

NO.	GAINFUL HOME ECONOMICS
805	CHILD DEVELOPMENT
817	CLOTHING SERVICES
825	CO-OP HOME ECONOMICS

specimen form. Based upon preliminary information about the number of forms required at each school, the plan was to package forms, instructions, return envelopes, etc. for each school to simplify distribution to district and school levels.

Only 12 of the twenty-two cities agreed to use the form. The others, although previously acquanted with the planned procedure, decided for various reasons that they could not comply, but would provide us with a data tape or cards that had at least the necessary minimum of information needed for the survey. Table 2.1 shows the basic graduate data obtained from each city. The main objection against the use of the Student Data Form was that it would upset school routine. There is extreme reluctance to request school personnel to undertake such extra assignments without special compensation. In some cities, the superintendent level personnel were obviously under considerable pressure by their local circumstances to avoid imposing any extra effort upon school personnel. It seemed some did not want to add the straw that would break the camel's back. *We wish to make it clear that the problem was not a lack of wanting to cooperate*. The cities that decided against the use of the Student Data Form had internal problems that made it prudent not to ask school personnel to shoulder an extra burden.[1]

A word about the problems we had with the data tapes provided by the cities. It may help some future researchers avoid the kind of ulcer-provoking experiences that we had. *First*, despite requests for compliance with a standard tape format and agreements to provide the same, we got whatever format they chose to give us. *Second*, despite requests for specified kinds of data, we got tapes with whatever other data happened to be on the tape that was convenient to send. One city, for example, sent their master child register tape that included all K-12 enrollments, leaving us with the sticky problem of

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[1] The individual researcher has little awareness that the major cities are truly burdened with requests to cooperate in all manner of research, including U. S. Office of Education sponsored research. All such requests are a burden because school personnel do not have "idle time" ready and available for donation to "good research causes." Researchers would do well to abandon the traditional concept that school personnel should subsidize research for the good of the cause.

TABLE 2.1 SUMMARY OF CLASS OF '70 GRADUATE DATA FROM CITY

CITY	NUMBER OF SCHOOLS			VOCATIONAL GRADUATES		ACADEMIC/GENERAL GRADUATES		FORM DATA REC'D FROM CITY			PUPIL DATA VARIABLES								
	VOC	COMP	TOTAL	SAMPLE	%	SAMPLE	%	DATA TAPE	PUPIL FORM	DATA CARDS	1 NAME	1 ADDRESS	2 SEX	2 RACE	3 SPANISH	4 SCHOOL	4 COURSE	5 GRADES	6/7 PLANS
CHICAGO	12	45	57	2571	100.0	4953	25.0	*			*	*	*	N/A		*	P		
HOUSTON	--	23	23	1891	100.0	2333	33.3		*		*	*	*	*	*	*	*	*	*
NEW YORK	27	63	90	3109	50.0	5239	10.0	*			*	*	*	*		*	*		
PHILADELPHIA	14	15	29	3408	100.0	8131	100.0		*		*	*	*	*	*	*	*	*	*
CLASS 1 CITIES	53	146	199	10979	--	20656	--	--	--	--									
ATLANTA	--	25	25	435	100.0	2657	50.0	*			*	*	*	*		*	P		
BALTIMORE	2	19	21	4191	100.0	1720	50.0	*			*	*	*	*		*	P		
BOSTON	4	16	20	2325	100.0	1387	50.0	*			*	*	*	N/A		*	*		
CLEVELAND	5	11	16	1333	100.0	1556	50.0		*		*	*	*	*	*	*	*	*	*
NEW ORLEANS	3	12	15	1011	100.0	990	50.0		*		*	*	*	*	*	*	*	*	*
PITTSBURGH	3	13	16	1655	100.0	2333	100.0		*		*	*	*	*	*	*	*	*	*
SAN FRANCISCO	2	9	11	1264	100.0	2479	100.0		*		*	*	*	*	*	*	*	*	*
SEATTLE	--	12	12	554	100.0	2962	50.0	*			*	*	*	*		*	*		
ST. LOUIS	2	10	12	1847	100.0	3056	100.0	*			*	*	*	N/A		*	*		
WASHINGTON, D.C.	5	16	21	1199	100.0	3323	100.0		*		*	*	*	*	*	*	*	*	*
CLASS 2 CITIES	26	143	169	15814	--	22493	--	--	--	--									
BIRMINGHAM	1	13	14	450	100.0	1346	50.0		*		*	*	*	*	*	*	*	*	*
LOUISVILLE	2	5	7	1115	100.0	1639	100.0		*		*	*	*	*	*	*	*	*	*
MINNEAPOLIS	1	10	11	245	100.0	2034	50.0			*	*	*	*	N/A		*	*		
NEWARK	--	9	9	961	100.0	1258	100.0		*		*	*	*	*	*	*	*	*	*
ESSEX COUNTY	4	--	4	439	100.0	--	--		*		*	*	*	*	*	*	*	*	*
NORFOLK	1	5	6	432	100.0	936	50.0		*		*	*	*	*	*	*	*	*	*
OMAHA	--	7	7	1186	100.0	2098	100.0	*			*	*	*	*		*	*		
PORTLAND	2	12	14	1686	100.0	1893	50.0	*			*	*	*	N/A		*	*		
ROCHESTER	1	8	9	1403	100.0	827	100.0	*			*	*	*	N/A		*	P		
CLASS 3 CITIES	12	69	81	7917	--	12031	--	--	--	--									
ALL CITIES COMBINED	91	358	449	34710	--	55180	--	--	--	--									

P - Graduates were identified only as vocationals or non-vocationals by the participant school districts.

identifying secondary school seniors who were vocational majors. Third, despite requests to include, if available, data such as sex, race, and specific occupational curriculum completed, not all complied. There was much back and forth between ESRI and some cities until we got usable tapes. The end result was costly delays and completely unexpected and excessively costly programming to convert the heterogeneous collection of data tapes into a standard format from which we could program our questionnaire processing.

THE COMPOSITION OF THE CLASS OF '70

The reader will want to know how the total vocational output of these twenty-two major cities broke down into sex, race and other classifications. Let's look at the universe data, such as we were able to reconstruct the approximation.

1. Analyses by sex and race. Table 2.2 shows for each city the total number of vocational graduates for which ESRI was provided the minimum information required for the follow-up survey.[1] The number and percentage of white, black and other races of male and female Class of '70 graduates is indicated for each city where race and sex data was available.

   According to the table, the Class of '70 vocational program graduates numbered 37,819 for the combined twenty-two cities. Is this truly the Class of '70 vocational program output for these cities? We think not. We had no account of the true population numbers of vocational graduates for each city, much less a breakdown by type

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[1] New York City data does not represent all graduates. We included all graduates reported by the 27 vocational schools, and 50% of the graduates reported as vocational program completers, mainly Business Education majors, for the academic high schools. The latter were randomly selected by taking every other case on a tape which had the cases sorted alphabetically within each vocational curriculum for each school.

TABLE 2.2 RACE AND SEX COMPOSITION OF FOLLOW-UP SURVEY SAMPLE

CITY	MALE								FEMALE								TOTAL							
	WHITE		BLACK		OTHER *		TOTAL		WHITE		BLACK		OTHER		TOTAL		WHITE		BLACK		OTHER		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
CHICAGO	13	0.5	673	26.2	468	8.2	1154	44.9	99	3.8	951	37.0	0	0.0	1050	40.8	[illegible]	4.4	1624	63.2	468	18.2	2571	7.4
HOUSTON	562	29.7	265	14.0	14	0.7	841	44.5	756	40.0	267	14.1	6	0.3	1029	54.4	1318	69.7	532	28.1	20	1.0	1891	5.4
NEW YORK (1)	712	22.9	345	11.1	680	21.9	1737	55.9	384	12.3	371	11.9	9	0.3	764	24.6	1096	32.2	716	23.0	780	25.1	3109	9.0
PHILADELPHIA	655	19.2	798	23.4	50	1.5	1503	44.1	793	23.3	1019	29.9	93	2.7	1905	55.9	1448	42.5	1817	53.3	143	4.2	3408	9.8
CLASS 1 CITIES	1942	17.7	2081	19.0	1212	11.0	5235	47.7	2032	18.5	2608	23.8	108	1.0	4748	43.2	3974	36.2	4689	42.7	1411	12.8	10979	31.6
ATLANTA	0	0.0	83	19.1	0	0.0	191	43.9	0	0.0	132	30.3	0	0.0	244	56.1	0	0.0	215	49.4	0	0.0	435	1.2
BALTIMORE	825	19.7	809	19.3	2	0.0	1736	41.4	859	20.5	1533	36.6	0	0.0	2392	57.1	1684	40.2	2442	58.3	2	0.1	4191	12.1
BOSTON (2)	NA	--	NA	--	NA	--	1052	45.2	NA	--	NA	--	NA	--	1273	54.8	NA	--	NA	--	NA	--	2325	6.7
CLEVELAND	431	32.3	179	13.4	0	0.0	610	45.8	519	38.9	195	14.6	0	0.0	714	[illegible]	950	71.3	374	28.0	0	0.0	1333	3.8
NEW ORLEANS	185	18.3	185	18.3	4	0.4	374	37.0	336	33.2	290	28.7	3	0.3	629	62.2	521	51.5	475	47.0	7	0.7	1011	2.9
PITTSBURGH	547	33.0	229	13.8	5	0.3	781	47.2	578	34.9	286	17.3	10	0.6	874	52.8	1125	68.0	515	31.1	15	0.9	1655	4.8
SAN FRANCISCO	182	14.4	101	8.0	172	13.6	588	46.5	181	14.3	172	13.6	141	11.2	577	45.6	363	28.7	273	21.6	313	24.8	1264	3.6
SEATTLE (3)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	443	80.0	64	11.6	44	7.9	554	1.6
ST. LOUIS (2)	NA	--	NA	--	NA	--	717	38.8	NA	--	NA	--	NA	--	1130	61.2	NA	--	NA	--	NA	--	1847	5.3
WASHINGTON, D.C.	13	1.1	428	35.7	10	0.8	451	37.6	6	0.5	709	59.1	6	0.5	721	60.1	19	1.6	1137	94.8	16	1.3	1199	3.4
CLASS 2 CITIES	2183	13.8	2014	12.7	193	1.2	6500	41.1	2479	15.7	3317	21.0	160	1.0	8554	54.1	5105	32.3	5495	34.7	397	2.5	15814	45.6
BIRMINGHAM	81	18.0	153	34.0	6	1.3	240	53.3	72	16.0	132	29.3	1	0.2	205	45.6	153	34.0	285	63.3	7	1.6	450	1.3
LOUISVILLE	249	22.3	216	19.4	6	0.5	471	42.2	315	28.2	323	29.0	0	0.0	638	57.2	564	50.6	539	48.3	6	0.5	1115	3.2
MINNEAPOLIS (2)	NA	--	NA	--	NA	--	43	17.6	NA	--	NA	--	NA	--	52	21.2	NA	--	NA	--	NA	--	245	0.7
NEWARK	106	11.0	145	15.1	8	0.8	259	27.0	255	26.5	410	42.7	4	0.4	669	69.6	361	37.6	555	57.8	12	1.2	961	2.8
ESSEX COUNTY	165	37.6	136	31.0	9	2.0	310	70.6	90	20.5	38	8.6	0	0.0	128	29.2	255	58.1	174	39.6	9	2.0	439	1.3
NORFOLK	115	26.6	65	15.0	3	0.7	183	42.4	173	40.0	73	16.9	1	0.2	247	57.2	288	66.7	138	31.9	4	0.9	432	1.2
OMAHA (3)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1053	88.8	132	11.1	1	0.1	1186	3.4
PORTLAND (2)	NA	--	NA	--	NA	--	643	38.1	NA	--	NA	--	NA	--	867	51.4	NA	--	NA	--	NA	--	1686	4.8
ROCHESTER (2)	NA	--	NA	--	NA	--	780	55.6	NA	--	NA	--	NA	--	623	44.4	NA	--	NA	--	NA	--	1403	4.0
CLASS 3 CITIES	716	9.0	715	9.0	32	0.4	2929	37.0	905	11.4	976	12.3	6	0.1	3429	43.3	2674	33.8	1823	23.0	39	0.5	7917	22.8
ALL CITIES COMBINED	4841	13.9	4810	13.8	1437	4.1	14664	42.2	5416	15.6	6901	19.9	274	0.8	16731	48.2	11753	33.9	12007	34.6	1847	5.3	34710	--

( ) Only one half of the reported graduates (6218) were surveyed. They were equally sampled by race, sex and program area.

(2) Race and/or sex data was not available from these cities.

(3) Sex data was unusable from these cities.

* OTHER: Includes all other racial groups.

of vocational curriculum, race and sex, because most major cities do not make a precise record of their vocational output. With few exceptions, one could ask the Superintendent of Schools from these cities for the number of, say, stenographic/secretarial majors graduated with the past graduating class and he would not be able to provide the answer without ordering a special research effort in all schools. Only since the new reporting requirement of the U. S. Office of Education that cities with a population above 250,000 persons must report vocational education data separately from the aggregation of state data, have these cities been forced to improve their accounting of vocational program enrollments and output. Even so, much of the data reported under this new requirement is not correct. Despite all their computerization capacity, the majority of Project Metro cities have not adequately computerized their vocational education data so that they can produce the required U. S. Office of Education reports.

Where does this leave the Class of '70 follow-up survey? It is our educated guess, supported by Class of '68 data from twelve of the cities included in the present survey, that our universe of graduates was ninety percent or better complete for most cities. Minneapolis is an exception for reasons explained earlier. Also, we suspect that the number of graduates indicated for Atlanta and Chicago is less than 90 percent of the total Class of '70 vocational program output.

To summarize, the survey sample of vocational graduates totaled about 34,710. Of these, 14,664 or 42.2% were males, 16,731 or 48.2% were females and 3315 or 9.6% could not be defined as to sex. Again, 11,753 or 33.9% were white, 12,007 or 34.6% were black, 1847 or 5.3% were identified as a race other than white or black, and 9103 or 26.2% could not be defined as to race.

2. Analyses by type of program. Table 2.3 shows how the universe of graduates was distributed among the basic vocational program fields, and the number and percentage in each city that could not be so classified because of lack of data. The wide variation in output

TABLE 2.3 VOCATIONAL PROGRAM COMPOSITION OF FOLLOW-UP SURVEY SAMPLE [1]

CITY	TRADE/ INDUSTRIAL		TECHNICAL OCCUPATIONS		DISTRIB. EDUCATION		BUSINESS EDUCATION		HEALTH OCCUPATIONS		HOME ECONOMICS		AGRICULTURE OCCUPATIONS		UNCLASS. VOCATIONALS		TOTAL SURVEYED
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
CHICAGO	197	40.4	3	0.6	31	6.4	244	50.0	10	2.0	3	0.6	0	0.0	2083	81.0	2571
HOUSTON	736	39.3	14	0.7	266	14.2	645	34.5	79	4.2	87	4.6	44	2.4	20	1.0	1891
NEW YORK	1916	62.4	142	4.6	39	1.3	736	24.0	239	7.8	0	0.0	0	0.0	37	1.2	3109
PHILADELPHIA	770	25.4	127	4.2	334	11.0	1632	53.9	36	1.2	54	1.8	77	2.5	378	11.1	3408
CLASS 1 CITIES	3619	42.8	286	3.4	670	7.9	3257	38.5	364	4.3	144	1.7	121	1.4	2518	22.9	10979
ATLANTA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	435	100.0	435
BALTIMORE	700	23.3	129	4.3	70	2.3	2034	67.7	56	1.9	3	0.1	13	0.4	1186	28.3	4191
BOSTON	578	24.9	0	0.0	41	1.8	1680	72.2	0	0.0	0	0.0	26	1.1	0	0.0	2325
CLEVELAND	407	47.4	0	0.0	24	2.8	360	41.9	0	0.0	31	3.6	37	4.3	474	35.6	1333
NEW ORLEANS	196	19.6	0	0.0	273	27.3	462	46.2	36	3.6	12	1.2	21	2.1	11	1.1	1011
PITTSBURGH	541	33.0	131	8.0	213	13.0	621	37.8	34	2.1	101	6.2	0	0.0	14	0.8	1655
SAN FRANCISCO	557	44.2	0	0.0	24	1.9	660	52.4	3	0.2	9	0.7	7	0.6	4	0.3	1264
SEATTLE	88	18.6	0	0.0	181	38.3	128	27.1	0	0.0	75	15.9	0	0.0	82	14.8	554
ST. LOUIS	224	16.0	0	0.0	756	54.0	420	30.0	0	0.0	0	0.0	0	0.0	447	24.2	1847
WASHINGTON, D.C.	350	29.6	0	0.0	67	5.7	690	58.4	41	3.5	28	2.4	6	0.5	17	1.4	1199
CLASS 2 CITIES	3641	27.7	260	2.0	1649	12.5	7055	53.7	170	1.3	259	2.0	110	0.8	2670	16.9	15814
BIRMINGHAM	219	50.1	0	0.0	72	16.5	104	23.8	0	0.0	42	9.6	0	0.0	13	2.9	450
LOUISVILLE	543	49.6	0	0.0	150	13.7	385	35.2	0	0.0	17	1.6	0	0.0	20	1.8	1115
MINNEAPOLIS	141	57.6	0	0.0	57	23.3	47	19.2	0	0.0	0	0.0	0	0.0	0	0.0	245
NEWARK	100	10.5	0	0.0	38	4.0	811	85.5	0	0.0	0	0.0	0	0.0	12	1.2	961
ESSEX COUNTY	277	63.1	107	24.4	0	0.0	55	12.5	0	0.0	0	0.0	0	0.0	0	0.0	439
NORFOLK	143	35.7	0	0.0	35	8.7	200	49.9	12	3.0	0	0.0	11	2.7	31	7.2	432
OMAHA	541	45.6	29	2.4	125	10.5	453	39.2	0	0.0	0	0.0	38	3.2	0	0.0	1186
PORTLAND	741	47.3	5	0.3	162	10.3	655	41.8	3	0.2	0	0.0	0	0.0	120	7.1	1686
ROCHESTER	0	0.0	0	0.0	195	28.8	483	71.2	0	0.0	0	0.0	0	0.0	725	51.7	1403
CLASS 3 CITIES	2705	38.7	141	2.0	834	11.9	3193	45.6	15	0.2	59	0.8	49	0.7	921	11.6	7917
ALL CITIES COMBINED	9965	34.8	687	2.4	3153	11.0	13505	47.2	549	1.9	462	1.6	280	1.0	6109	17.6	34710

---

[1] Shows the number and percentage of graduates in each program field for each city, based upon the total graduates that could be classified into program fields, not upon total graduates surveyed.

TABLE 2.3.1 VOCATIONAL PROGRAM COMPOSITION OF FOLLOW-UP SAMPLE [1]

CITY	TRADE/ INDUSTRIAL		TECHNICAL OCCUPATIONS		DISTRIB. EDUCATION		BUSINESS EDUCATION		HEALTH OCCUPATIONS		HOME ECONOMICS		AGRICULTURE OCCUPATIONS		UNCLASS. VOCATIONALS		TOTAL SURVEYED
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
CHICAGO	197	2.0	3	0.4	31	1.0	244	1.8	10	1.8	3	0.6	0	0.0	2083	34.1	2571
HOUSTON	736	7.4	14	2.0	266	8.4	645	4.8	79	14.4	87	18.8	44	15.7	20	0.3	1891
NEW YORK	1916	19.2	142	20.7	39	1.2	736	5.4	239	43.5	0	0.0	0	0.0	37	0.6	3109
PHILADELPHIA	770	7.7	127	18.5	334	10.6	1632	12.1	36	6.6	54	11.7	77	27.5	378	6.2	3408
CLASS 1 CITIES	3619	36.3	286	41.6	670	21.2	3257	24.1	364	66.3	144	31.2	121	43.2	2518	41.2	10979
ATLANTA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	435	7.1	435
BALTIMORE	700	7.0	129	18.8	70	2.2	2034	15.1	56	10.2	3	0.6	13	4.6	1186	19.4	4191
BOSTON	578	5.8	0	0.0	41	1.3	1680	12.4	0	0.0	0	0.0	26	9.3	0	0.0	2325
CLEVELAND	407	4.1	0	0.0	24	0.8	360	2.7	0	0.0	31	6.7	37	13.2	474	7.8	1333
NEW ORLEANS	196	2.0	0	0.0	273	8.6	462	3.4	36	6.6	12	2.6	21	7.5	11	0.2	1011
PITTSBURGH	541	5.4	131	19.1	213	6.8	621	4.6	34	6.2	101	21.9	0	0.0	14	0.2	1655
SAN FRANCISCO	557	5.6	0	0.0	24	0.8	660	4.9	3	0.5	9	1.9	7	2.5	4	0.1	1264
SEATTLE	88	0.9	0	0.0	181	5.7	128	0.9	0	0.0	75	16.2	0	0.0	82	1.3	554
ST. LOUIS	224	2.2	0	0.0	756	24.0	420	3.1	0	0.0	0	0.0	0	0.0	447	7.3	1847
WASHINGTON, D.C.	350	3.5	0	0.0	67	2.1	690	5.1	41	7.5	28	6.1	6	2.1	17	0.3	1199
CLASS 2 CITIES	3641	36.5	260	37.8	1649	52.3	7055	52.2	170	31.0	259	56.1	110	39.3	2670	43.7	15814
BIRMINGHAM	219	2.2	0	0.0	72	2.3	104	0.8	0	0.0	42	9.1	0	0.0	13	0.2	450
LOUISVILLE	543	5.4	0	0.0	150	4.8	385	2.8	0	0.0	17	3.7	0	0.0	20	0.3	1115
MINNEAPOLIS	141	1.4	0	0.0	57	1.9	47	0.3	0	0.0	0	0.0	0	0.0	0	0.0	245
NEWARK	100	1.0	0	0.0	38	1.2	811	6.0	0	0.0	0	0.0	0	0.0	12	0.2	961
ESSEX COUNTY	277	2.8	107	15.6	0	0.0	55	0.4	0	0.0	0	0.0	0	0.0	0	0.0	439
NORFOLK	143	1.4	0	0.0	35	1.1	200	1.5	12	2.2	0	0.0	11	3.9	31	0.5	432
OMAHA	541	5.4	29	4.2	125	4.0	453	3.4	0	0.0	0	0.0	38	13.6	0	0.0	1186
PORTLAND	741	7.4	5	0.7	162	5.1	655	4.8	3	0.5	0	0.0	0	0.0	120	2.0	1686
ROCHESTER	0	0.0	0	0.0	195	6.2	483	3.6	0	0.0	0	0.0	0	0.0	725	11.9	1403
CLASS 3 CITIES	2705	27.1	141	20.5	834	26.4	3193	23.6	15	2.7	59	12.8	49	17.5	921	15.1	7917
ALL CITIES COMBINED	9965	--	687	--	3153	--	13505	--	549	--	462	--	280	--	6109	--	34710

---

[1] Shows the number and percentage of graduates that each city contributed to each basic program field. Also gives similar data for the three groups of cities and all cities combined. For example, the trade and industrial field contributed 27.1% of the total survey sample.

among the program areas reflects, of course, the student enrollments in each program area rather than the number of specific vocational curricula. Business education enrollments are always high relative to the output in other program areas.

3. Analyses by type of occupation. This is a further breakdown of the analysis by program field. Table 2.4 lists in rank order of total number of graduates the specific vocational curricula represented in the population of graduates. The titles do not necessarily coincide with the local curriculum titles. A judgment was made for each local title to determine the appropriate generic title to which the graduates were to be assigned. One can see that the output of entry-level skilled graduates is very sparse for many occupations, especially considering the labor markets that are being served.

THE FOLLOW-UP SURVEY PROCEDURE

THE SURVEY QUESTIONNAIRE

An actual specimen of a survey questionnaire is shown on a later page. The reader is advised to study the questionnaire before he continues with the text.

The questionnaire design is worthy of some discussion. It is designed as continuous stock for a computer printer. Programming applied to the master Class of '70 graduate file, produces a printout of (1) coded information, e.g. city, school, vocational course, sex, race, student ID number and mailout wave number in the area marked with small boxes, (2) the name and address of the graduate in the large rectangle and (3) a repetition of the coded information in a non-scanable form. The upper portion of the computer-printed information can be read by an optical scanner.

The body of the questionnaire requires the students to mark their answers as indicated at the top. Happily, better than 90 percent do. The rest use ink pens, crayons or anything else they have on hand (Would you believe, lipstick?) and make crosses, checks or nice little circles. Happily, again, the optical scanner can be programmed to reject all such forms into a separate hopper. All such returns are then hand-corrected before being resubmitted

TABLE 2.4 OCCUPATIONAL COMPOSITION OF FOLLOW-UP SURVEY SAMPLE

PROGRAM/CURRICULUM	N	%[1]	%[2]
TRADE AND INDUSTRIAL	9965	34.8	--
Air conditioning	78	0.3	0.8
Appliance repair	67	0.2	0.7
Auto body repair	204	0.7	2.0
Auto mechanics	803	2.8	8.0
Auto occupations	144	0.5	1.4
Aviation occupations	358	1.2	3.6
Bio-scientific lab asst.	7	*	0.1
Building construction	50	0.2	0.5
Business machine repair	32	0.1	0.3
Carpentry	237	0.8	2.4
Ceramics	5	*	0.1
Commercial art	551	1.9	5.5
Commercial photography	27	0.1	0.3
Cosmetology	620	2.2	6.2
Diesel mechanic	35	0.1	0.4
Diversified coop	178	0.6	1.8
Drafting	881	3.1	8.8
Dressmaking	249	0.9	2.5
Electric power gen. plants	10	*	0.1
Electrical occupations	703	2.4	7.0
Electronics occupations	251	0.9	2.5
Equipment repair	42	0.1	0.4
Fabric maintenance	25	0.1	0.2
Fashion trades	120	0.4	1.2
Fluid power (hydraulics)	5	*	0.1
Food service occupations	309	1.1	3.1
Foundry	21	0.1	0.2
Heavy equip. operator	5	*	0.1
Interior decorating	9	*	0.1
Jewelry design	10	*	0.1
Machine tool operator	23	0.1	0.2
Machine shop	562	2.0	5.6
Maritime trades	19	0.1	0.2
Masonry	64	0.2	0.6
Metal trades	148	0.5	1.5
Mill/cabinetry	402	1.4	4.0
Mine maintenance	1	*	*
Optics	8	*	0.1
Painting/decorating	42	0.1	0.4
Patternmaking	64	0.2	0.6
Plumbing	62	0.2	0.6
Power sewing	90	0.3	0.9
Printing/Graphic arts	625	2.2	6.3
Radio/Television	338	1.2	3.4
Sheet metal	129	0.4	1.3
Shoe repair	29	0.1	0.3
Small engine repair	49	0.2	0.5
Tailoring	110	0.4	1.1
Teacher aide	2	*	*
Textile products	10	*	0.1
Tool and die design	36	0.1	0.4
Upholstery	41	0.1	0.4
Watch repair	8	*	0.1
Welding	177	0.6	1.8
Woodworking	56	0.2	0.6
Work experience	54	0.2	0.5
Work study	426	1.5	4.3
T & I unspecified	371	1.3	3.7
TECHNICAL OCCUPATIONS	687	2.4	--
Aeronautics technology	15	0.1	2.2
Architectural technology	31	0.1	4.5
Automation technology	11	*	1.6
Automotive technology	14	*	2.0
Chemical technology	6	*	0.9
Electrical technology	69	0.2	10.0
Electronics technology	291	1.0	42.4
Engineering technology	3	*	0.4
Environmental technology	14	*	2.0
Instrumentation technology	2	*	0.3
Manufacturing technology	17	0.1	2.5
Mechnical Draft/Design	74	0.2	10.8
Mechnical technology	4	*	0.6
Nuclear technology	3	*	0.4
Plastics technology	2	*	0.3
Radio/Television	20	0.1	2.9
Research lab assistant	19	0.1	2.8
Scientific data processing	13	*	1.9
Tool and die technology	2	*	0.3
Welding technology	1	*	0.1
Technical unspecified	76	0.3	11.1
DISTRIBUTIVE EDUCATION	3153	11.0	--
BUSINESS EDUCATION	13505	47.2	--
Bookkeeping/Accounting	1327	4.6	9.8
Business Educ. General	3751	13.1	27.8
Business data processing	472	1.6	3.5
Business/Distrib. educ.	401	1.4	3.0
Business/Office	421	1.5	3.1
Clerical practice	157	0.5	1.2
Clerk-typist	1471	5.1	10.9
General clerical	1996	7.0	14.8
Office machines	116	0.4	0.8
Steno/Secretarial	2320	8.1	17.2
Vocational office	329	1.2	2.4
Business unspecified	744	2.6	5.5
HEALTH OCCUPATIONS	549	1.9	--
Dental assistant	46	0.2	8.4
Health assistant	10	*	1.8
Medical assistant	57	0.2	10.4
Medical lab assistant	10	*	1.8
Nursing assistant	35	0.1	6.4
Practical nurse	252	0.9	45.9
Health unspecified	139	0.5	25.3
GAINFUL HOME ECONOMICS	462	1.6	--
Child care/Guidance	99	0.3	21.4
Clothing services	54	0.2	11.7
Food services	106	0.4	22.9
Homemaking coop	112	0.4	24.2
Gainful Home Ec. unspec.	91	0.3	19.7
AGRICULTURE OCCUPATIONS	280	1.0	--
Agriculture mechanics	6	*	2.1
Agriculture production	56	0.2	20.0
Agriculture products	12	*	4.3
Agriculture resources	6	*	2.1
Animal technology	20	0.1	7.1
Horticulture	108	0.4	38.6
Agriculture unspecified	72	0.3	25.7
UNCLASSIFIED VOCATIONALS	6109	17.6	--
TOTAL VOCATIONALS	34710	100.0	--

*Percentages less than .05.

[1] Percentages are based upon total survey returns minus number unclassified by program

[2] Percentages are based upon total survey returns within each program.

FOLLOW-UP CAREER SURVEY

- PLEASE ANSWER ALL QUESTIONS THAT APPLY TO YOU
- ALL ANSWERS ARE STRICTLY CONFIDENTIAL
- ERASE MARK COMPLETELY IF YOU WANT TO CHANGE ANSWER
- RETURN QUESTIONNAIRE IN POSTAGE PAID ENVELOPE

A. ABOUT HIGH SCHOOL

1. DID YOU GET TO TAKE THE OCCUPATIONAL COURSE OF YOUR 1ST, 2ND OR 3RD CHOICE?

☐ First (1st) choice
☐ Second (2nd) choice
☐ Third (3rd) choice
☐ No choice available

WRITE NAME OF COURSE YOU TOOK ▼ ____________

2. ASIDE FROM YOURSELF, WHO INFLUENCED YOUR OCCUPATIONAL COURSE CHOICE MOST? (Mark only one answer please)

☐ Guidance Counselor
☐ Vocational teacher
☐ Other school personnel
☐ Parents
☐ Brother/sister
☐ Relatives/family friends
☐ Personal friend of your age group
☐ Someone other than above (not you)

3. WHEN YOU MADE YOUR COURSE CHOICE HOW WELL INFORMED WERE YOU ABOUT THE OCCUPATION?

☐ Excellent
☐ Good
☐ Fair
☐ Poor

Consider things like pay, type work, job opportunities, conditions of work, advancement, etc.

4. WHEN YOU SELECTED YOUR COURSE, DID YOU PLAN TO WORK IN THAT OCCUPATION?

☐ Yes, definitely yes
☐ Yes, but not definite
☐ No, but not definite
☐ No, definitely no

B. YOUR PRESENT STATUS

5. PLEASE MARK YOUR PRESENT STATUS. DO NOT MARK MORE THAN 1 BOX PER COLUMN. THANK YOU

A	B	
☐		Employed, full-time
☐		Employed, part-time
☐		Unemployed, looking for work.
☐		Unemployed, not looking for work
	☐	College, full-time
	☐	College, part-time
	☐	School (not college) full-time
	☐	School (not college) part-time
☐		Military service
☐		Status other than above (explain): ____________

C. ABOUT YOUR EMPLOYMENT

PLEASE SKIP TO SECTION D IF YOU DO NOT HAVE A FULL-TIME OR PART-TIME JOB

6. IS YOUR PRESENT JOB YOUR 1ST JOB SINCE YOU FINISHED HIGH SCHOOL?

☐ Yes
☐ No

7. HOW MANY WEEKS AFTER HIGH SCHOOL DID IT TAKE TO GET YOUR FIRST JOB?

0	0	
1	1	
2	2	
3	3	
4	4	
5	5	
6	6	
7	7	
8	8	
9	9	

If less than 10 weeks, mark 0 plus the number. For example, three (3) weeks would be marked as 03

●	0
1	1
2	2
3	●
4	4

DON'T FORGET

- Were you looking for a job during most of that time?

Yes ☐
No ☐

8. WHAT ANSWER BEST DESCRIBES HOW YOU GOT YOUR FIRST JOB AFTER HIGH SCHOOL? (Please mark only one answer)

☐ Already had job with employer
☐ Thru vocational teacher
☐ Thru school counselor
☐ Thru school placement office
☐ Thru other school personnel
☐ Private employment agency
☐ State employment agency
☐ Thru parent or relative
☐ Thru family or personal friend
☐ On my own, without anyone's help

9. WHAT KIND OF A JOB DO YOU HAVE? (Write in title, like auto mechanic, secretary)

____

10. HOW RELATED IS YOUR PRESENT JOB TO YOUR H.S. OCCUPATIONAL COURSE?

☐ Completely unrelated } SKIP TO
☐ Only slightly related } QUES. 12
☐ Highly related
☐ Same occupation studied

11. HOW WELL DID YOUR H.S. OCCUPATIONAL COURSE PREPARE YOU FOR YOUR PRESENT JOB?

☐ Excellent preparation
☐ Good preparation
☐ Not so good } SKIP TO
☐ Poor preparation } QUES. 13

YOUR EMPLOYMENT (Cont.)

12. WHAT WAS THE MAIN REASON FOR NOT GETTING PRESENT JOB IN FIELD OF STUDY? (Please mark only one answer)

☐ Tried, but could not find job in field
☐ Was not accepted in apprentice program
☐ Did not feel sufficiently qualified
☐ Decided I did not like type of work
☐ Found out that pay was too low
☐ Too little advancement opportunity
☐ Better type job came along first
☐ Never really planned to do so
☐ Reason other than above

13. WHAT IS YOUR PRESENT HOURLY PAY RATE? (ABSOLUTELY CONFIDENTIAL)

Write figure below.
$ ____ . ____ ____

Also mark boxes

If not on hourly rate, write your salary below

$ ________ per ________

For example:
$ 500.- per month

$	Cents	
0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

DO NOT MARK BOXES IF ON SALARY

D. ABOUT COLLEGE OR SCHOOL

PLEASE SKIP TO SECTION E IF YOU ARE NOT NOW IN COLLEGE OR SCHOOL

14. ARE YOUR PRESENT STUDIES OR PLANNED COLLEGE MAJOR RELATED TO YOUR H.S. OCCUPATIONAL COURSE?

☐ Yes
☐ No

15. DID YOU DISCUSS YOUR COLLEGE OR SCHOOL PLANS WITH YOUR H.S. COUNSELOR?

☐ Yes
☐ No

E. YOUR PRESENT LOCATION

16. WHERE ARE YOU NOW LOCATED?

☐ City in which I went to H.S.
☐ Same state, different city
☐ Different state

PLEASE DON'T MARK AREA BELOW

WAVE	P1	P2	
CITY	SCHOOL	COURSE	STUDENT ID

DO NOT MARK IN THIS AREA PLEASE

THANK YOU!

© • Copyright • Educational Systems Research Institute • 1970 • All Rights Reserved

Dear Graduate:

Although you are no longer with us, we are still very much interested in you. That is why we are doing a follow-up survey of our Class of 1970 graduates.

We need to learn about what our graduates are doing and how they are making out. Such information is a great help in our planning to improve student services, like counseling and guidance, college placement and job placement after graduation.

Please complete and return this questionnaire. It takes only ten minutes. The return envelope requires no postage.

All information is strictly confidential. Questionnaires are destroyed once the answers have been tallied. Your name is not associated with the information you give.

Please act today. This is your opportunity to provide important information for educational planning.

Sincerely,

Follow-Up Survey Committee
Class of 1970

P.S. If you have any comments or suggestions to make for improving high school education, please use the space below. Thank you.

to the scanner. Our experience with the scan-form questionnaire has been good, although there were early periods of difficulties. (Scanners are temperamental beasts, and their manufacturers do not always describe their temperamental characteristics.)

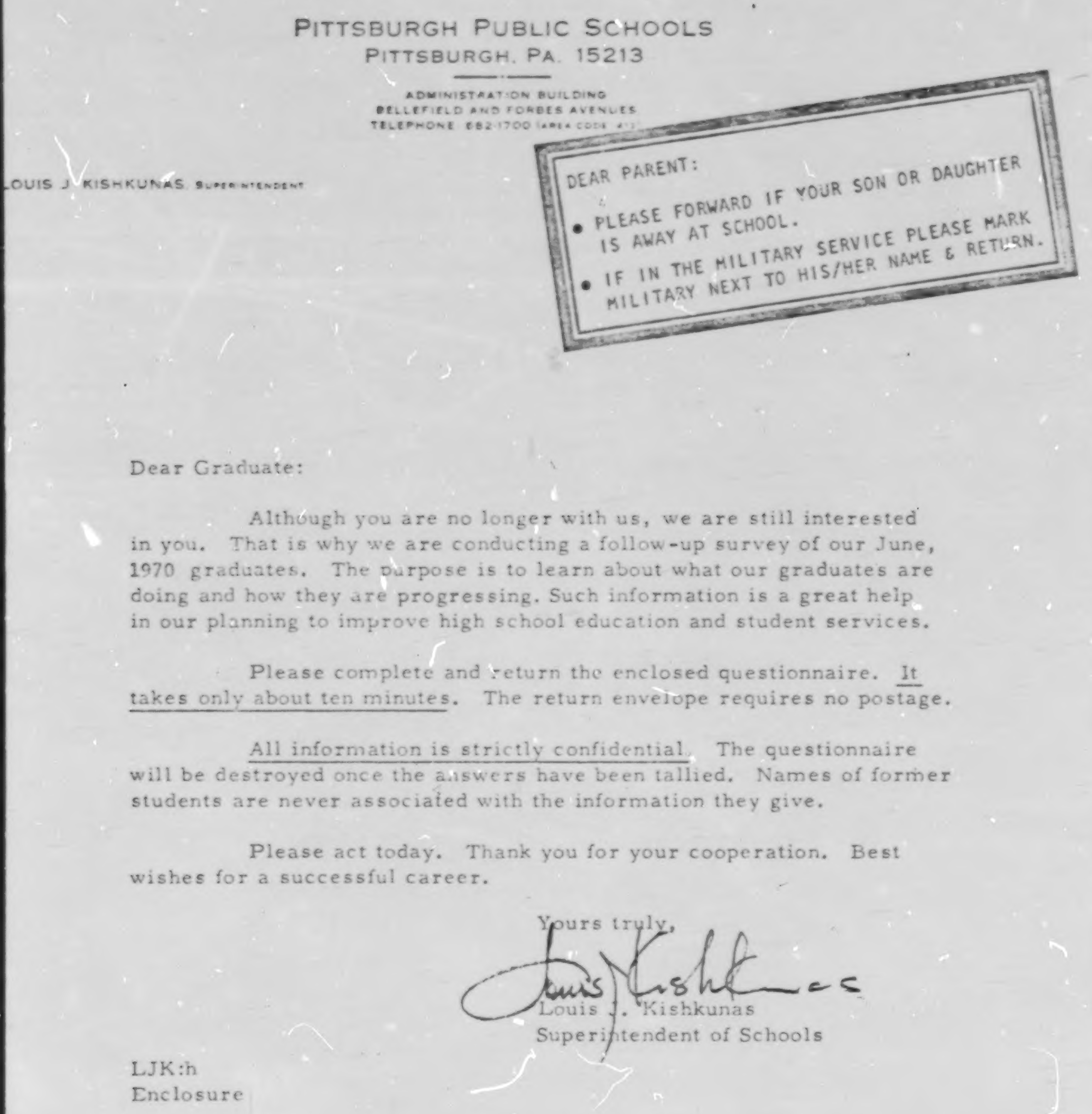
The rationale for the content of the questionnaire is derived in part from the manpower conversion equation. The rationale for each item is discussed in Chapter 3 prior the discussion of the survey results.

THE SURVEY PROCEDURE

The first mailout of the questionnaire was made on or about Oct. 5, 1970. With the authorization of each city, the mailout was made in an envelope indicating the local school district as the sender of the questionnaire. Enclosed with the questionnaire was a letter signed by the Superintendent of Schools or a lower-ranking superintendent-level person. A specimen letter is shown in Figure 2.3. In effect, then the graduate could only interpret the mailout as coming from his school system. To further this illusion, the questionnaires were air freighted to the Postmaster in each of the cities, excluding our home city of Pittsburgh, with instructions to release the mail on a given date. The return envelope was postage paid and addressed to a Post Office Box Number in each city. Arrangements were made with school districts to air freight the questionnaire returns back to ESRI at fixed intervals. A specimen of the mailing envelope and the return envelope is shown in Figure 2.4.

The returned questionnaires were subjected to pre-scanner clerical procedures and scanned, therewith producing a tentative first-mailout survey data tape. The tape was matched against the first mailout tape so as to produce a second questionnaire printing.

The second mailout was made on or about November 4, 1970. A specimen of the letter that accompanied the questionnaire is shown in Figure 2.5. The same basic procedure was followed as for the first mailout. Questionnaires were air freighted to the city Postmasters. Letters were mailed first class by the Postmasters on the requested date. Returns went to a local Post Office Box. All returns were air freighted to ESRI on or about December 31, 1970 by a representative of the school district. The local Post Office Boxes were



PITTSBURGH PUBLIC SCHOOLS
PITTSBURGH, PA. 15213

ADMINISTRATION BUILDING
BELLEFIELD AND FORBES AVENUES
TELEPHONE 682-1700 (AREA CODE 412)

LOUIS J. KISHKUNAS, SUPERINTENDENT

DEAR PARENT:

- PLEASE FORWARD IF YOUR SON OR DAUGHTER IS AWAY AT SCHOOL.
- IF IN THE MILITARY SERVICE PLEASE MARK MILITARY NEXT TO HIS/HER NAME & RETURN.

Dear Graduate:

Although you are no longer with us, we are still interested in you. That is why we are conducting a follow-up survey of our June, 1970 graduates. The purpose is to learn about what our graduates are doing and how they are progressing. Such information is a great help in our planning to improve high school education and student services.

Please complete and return the enclosed questionnaire. It takes only about ten minutes. The return envelope requires no postage.

All information is strictly confidential. The questionnaire will be destroyed once the answers have been tallied. Names of former students are never associated with the information they give.

Please act today. Thank you for your cooperation. Best wishes for a successful career.

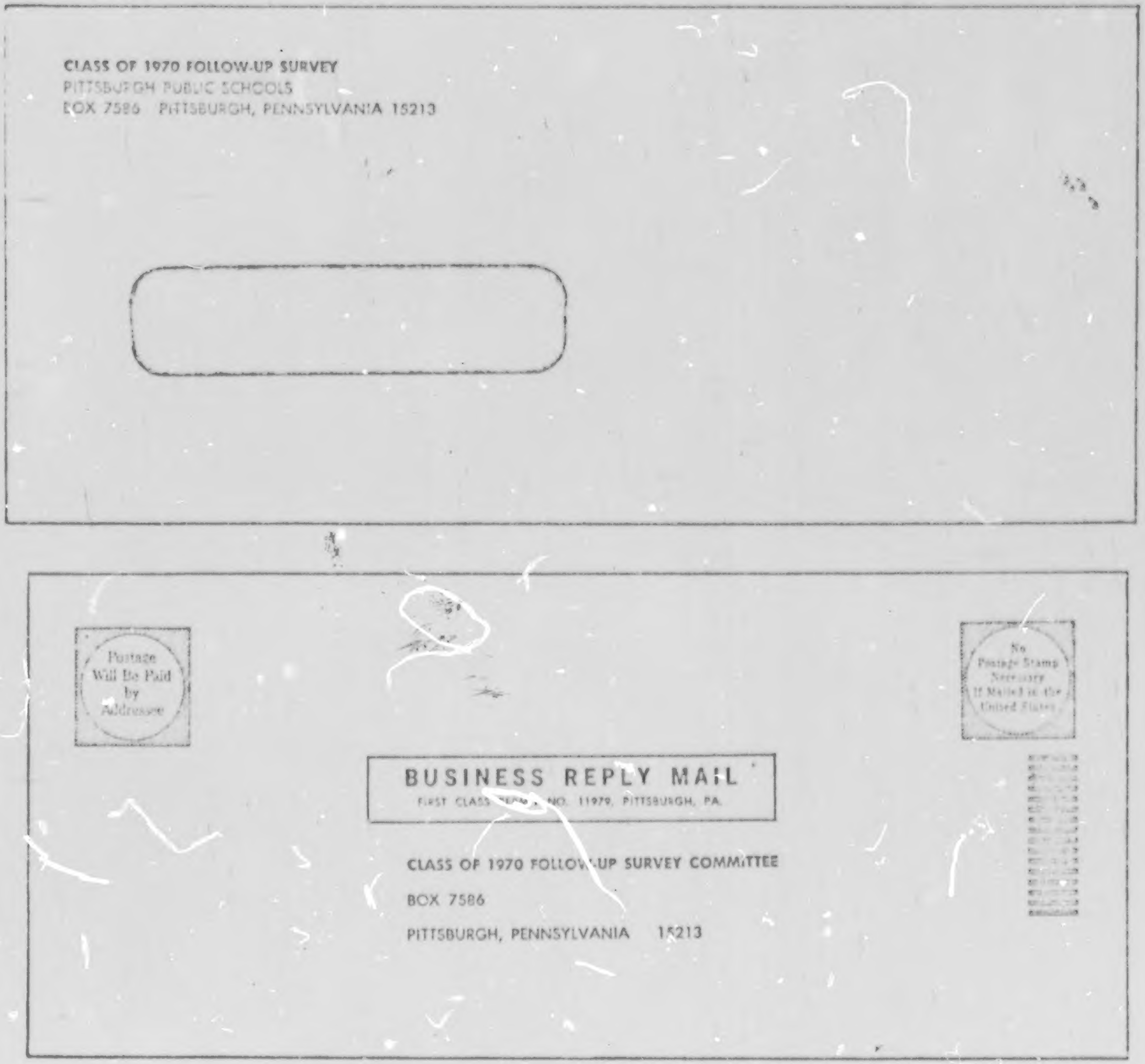
Yours truly,

Louis J. Kishkunas

Louis J. Kishkunas
Superintendent of Schools

LJK:h
Enclosure

Figure 2.3 SPECIMEN OF FIRST MAILOUT LETTER



CLASS OF 1970 FOLLOW-UP SURVEY
PITTSBURGH PUBLIC SCHOOLS
BOX 7586 PITTSBURGH, PENNSYLVANIA 15213

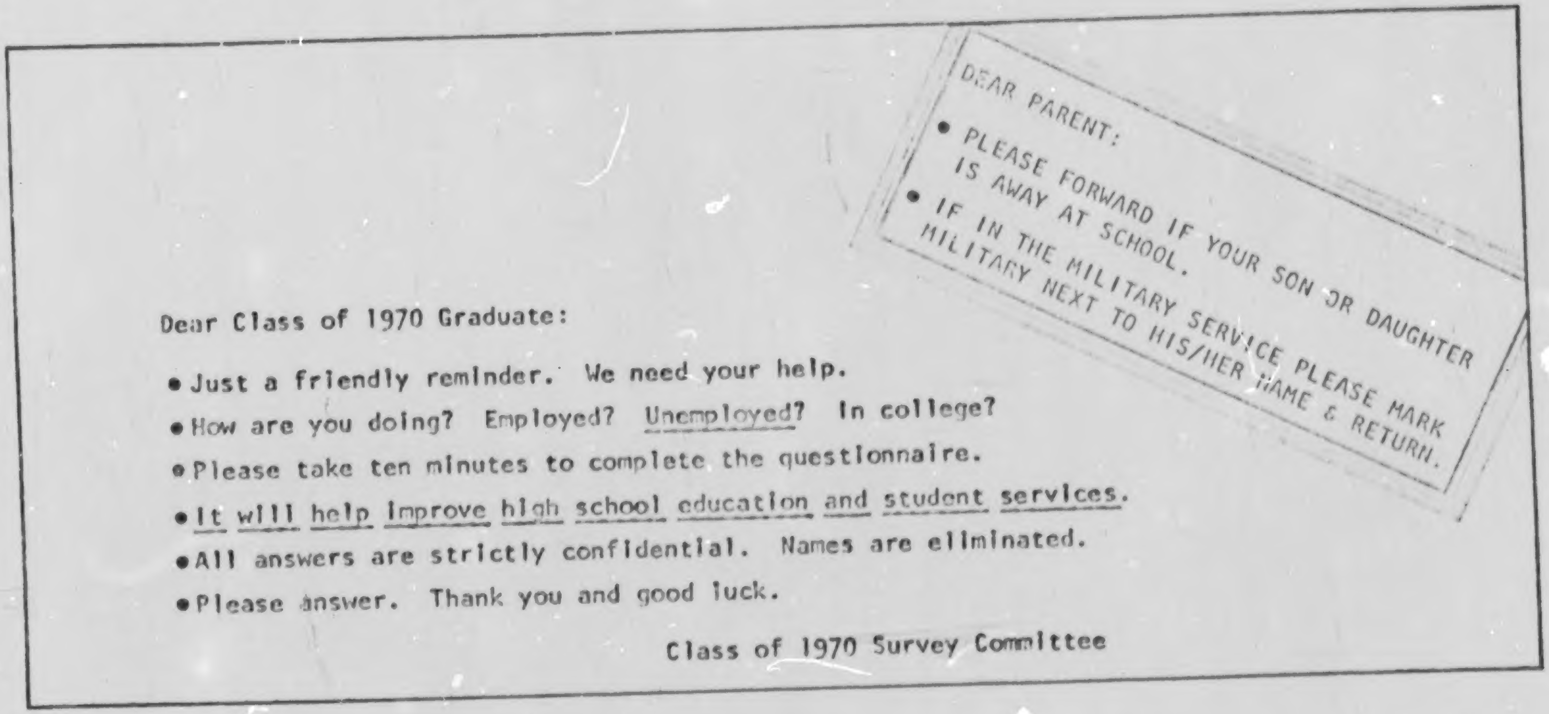
Postage Will Be Paid by Addressee

No Postage Stamp Necessary If Mailed in the United States

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO. 11979, PITTSBURGH, PA.

CLASS OF 1970 FOLLOW-UP SURVEY COMMITTEE
BOX 7586
PITTSBURGH, PENNSYLVANIA 15213

Figure 2.4 SPECIMEN OF MAILING AND RETURN ENVELOPES USED IN SURVEY



DEAR PARENT:

- PLEASE FORWARD IF YOUR SON OR DAUGHTER IS AWAY AT SCHOOL.
- IF IN THE MILITARY SERVICE PLEASE MARK MILITARY NEXT TO HIS/HER NAME & RETURN.

Dear Class of 1970 Graduate:

- Just a friendly reminder. We need your help.
- How are you doing? Employed? Unemployed? In college?
- Please take ten minutes to complete the questionnaire.
- It will help improve high school education and student services.
- All answers are strictly confidential. Names are eliminated.
- Please answer. Thank you and good luck.

Class of 1970 Survey Committee

Figure 2.5 REMINDER LETTER THAT ACCOMPANIED SECOND QUESTIONNAIRE

discontinued as of December 31, 1970. However, the Post Offices were cooperative in forwarding the small number of late returns during January and February.

That, in brief, is a non-technical description of the survey procedure The basic strategy was to handle the survey as if the school system itself was doing the survey. We felt that the graduates would be more responsive to their own school system than they would to an unknown organization in a distant city.

THE FOLLOW-UP SURVEY RETURNS

From a survey methodological standpoint, the purpose of the survey is to provide estimates of the population parameters involved, i.e. the values that would have been obtained had all graduates, including those who failed to show up on our master file of graduates for each city, answered the questionnaires correctly and reliably and returned the same for processing that would not introduce errors into the data calculations. That is a very long sentence which says much about the many sources of errors that may result in biased and/or unreliable population parameter estimates.

One of the potential major sources of bias is the bias inherent in the data returns because of a substantial percentage of non-respondents. The results obtained from a 50 percent rate of return may not be the same as what the results would have been had 70, 80, 90 or 100 percent of the graduates returned questionnaires. For example, if many graduates failed to return a questionnaire because they were embarrassed to admit that they were unemployed, the returns would be biased in terms of a lower than actual unemployment rate.

With that background, let's turn to the follow-up survey returns data.

The gross returns are summarized in Table 2.5. The number of vocational graduates surveyed are indicated by individual city, classification of city by population and all cities combined. A total of 34,710 vocational graduates were surveyed.

A total of 1877 questionnaires were returned because the address was not mailable or the addressee left no forwarding address. The overall

TABLE 2.5 ANALYSIS OF GROSS SURVEY RETURNS BY CITY

CITY	NUMBER OF GRADUATES[1]	GRADUATES SURVEYED		STATUS OF RETURNS					
				ADDRESS UNKNOWN		TOTAL RETURNS		USABLE RETURNS	
		N	%	N	%	N	%	N	%
CHICAGO	2571	2571	100.0	341	13.3	967	37.6	962	37.4
HOUSTON	1891	1891	100.0	54	2.8	774	40.9	772	40.8
NEW YORK	6218	3109	50.0	241	7.8	1607	51.7	1604	51.6
PHILADELPHIA	3408	3408	100.0	100	2.9	1376	40.4	1375	40.3
CLASS I CITIES	14088	10979	--	736	6.7	4724	43.0	4713	42.9
ATLANTA	435	435	100.0	80	18.4	134	30.8	131	30.1
BALTIMORE	4191	4191	100.0	127	3.0	1963	46.8	1953	46.6
BOSTON	2325	2325	100.0	224	9.6	781	33.6	776	33.4
CLEVELAND	1333	1333	100.0	32	2.4	558	41.9	555	41.6
NEW ORLEANS	1011	1011	100.0	45	4.4	486	48.1	483	47.8
PITTSBURGH	1655	1655	100.0	22	1.3	1135	68.6	1135	68.6
SAN FRANCISCO	1264	1264	100.0	55	4.4	513	40.6	511	40.4
SEATTLE	554	554	100.0	23	4.2	281	50.7	280	50.5
ST. LOUIS	1847	1847	100.0	83	4.5	840	45.5	835	45.2
WASHINGTON, D.C.	1199	1199	100.0	91	7.6	530	44.2	528	44.0
CLASS 2 CITIES	15814	15814	--	782	4.9	7221	45.7	7187	45.4
BIRMINGHAM	450	450	100.0	36	8.0	175	38.9	174	38.7
LOUISVILLE	1115	1115	100.0	73	6.5	468	42.0	466	41.8
MINNEAPOLIS	245	245	100.0	9	3.7	166	67.8	165	67.3
NEWARK	961	961	100.0	72	7.5	359	37.4	356	37.0
ESSEX COUNTY	439	439	100.0	13	3.0	246	56.0	244	55.6
NORFOLK	432	432	100.0	7	1.6	253	58.6	253	58.6
OMAHA	1186	1186	100.0	34	2.9	513	43.2	510	43.0
PORTLAND	1686	1686	100.0	83	4.9	969	57.5	967	57.4
ROCHESTER	1403	1403	100.0	32	2.3	716	51.0	714	50.9
CLASS 3 CITIES	7917	7917	--	359	4.5	3865	48.8	3849	48.6
ALL CITIES COMBINED	37819	34710	--	1877	5.4	15810	45.5	15749	45.4

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[1] As reported to ESRI by the participant city.

address unknown percentage was 5.4 percent. Atlanta was a problem largely because the addresses on the tape provided to ESRI were in a very poor condition. (It is a tribute to the U. S. Mails that so many questionnaires reached the Atlanta addressees.) Chicago was a problem largely because of the many graduates who had left no forwarding address.

The total returns include all questionnaires returned with responses on the questionnaire. A relatively small number of respondents answered one or two questions and then wrote comments on the questionnaire that indicated the questionnaire should not be processed. The balance of the questionnaires were regarded as usable questionnaires. The percentage of usable questionnaires ranged from a low of 30 percent (Atlanta) to a high of 68.6 percent (Pittsburgh) with an overall response rate of 45.4 percent. When based upon the total mailable questionnaires (total questionnaires mailed minus those returned address unknown), the response rate increased to 48 percent. We were satisfied that we obtained a good response rate for major cities. Nevertheless, the problem of non-respondent bias in the data must be considered. This will be done in a later section.

RESPONSE ANALYSIS BY RACE AND SEX

Table 2.6 provides an analysis of the survey returns from each city in terms of sex and race. Let's confine our discussion to the last row of the table, All Cities Combined. The total response rate for males was 42.7 percent. Within the male category, the return percentages for white, black and other races were respectively 49.4%, 37.1% and 44.5 percent. The minority group response rate, particularly the black response rate, is significantly lower. What this means is that, to the extent that there is a non-response bias in the data, that bias will be greater among the blacks and the other racial/ethnic minority groups. Included among the comparative data presented in later chapters, is a comparison of black and white data. The reader should be aware that the population parameter estimates derived for white and black graduates may be differentially biased because of the different rates of return. For example, the black unemployment rates are probably more greatly understated than the white unemployment rates. This possibility must constantly be kept in mind when the reader interprets black-white comparative data.

TABLE 2.6 ANALYSIS OF SURVEY RETURNS BY RACE AND SEX

CITY	MALE								FEMALE								TOTAL							
	WHITE		BLACK		OTHER***		TOTAL		WHITE		BLACK		OTHER		TOTAL		WHITE		BLACK		OTHER		TOTAL	
	N	%	N	%	N	%	N	%	n	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
CHICAGO	3	23.1	237	35.2	168	35.9	408	35.4	31	31.3	394	41.4	0	0.0	425	40.5	34	30.4	632	38.9	168	35.9	962	37.4
HOUSTON	204	35.3	87	32.8	0	0.0	291	34.6	339	44.8	124	46.4	5	83.3	469	45.6	546	41.4	213	40.0	5	25.0	772	40.8
NEW YORK	390	54.8	152	44.0	357	52.5	899	51.8	211	54.9	163	43.9	6	66.7	380	49.7	602	54.9	315	44.0	417	53.5	1604	51.6
PHILADELPHIA	303	46.2	251	31.4	16	32.0	570	37.9	409	51.6	367	36.0	1	1.1	777	40.8	713	49.2	619	34.1	17	11.9	1375	40.3
CLASS I CITIES	900	46.3	727	34.9	541	44.6	2168	41.4	990	48.7	1048	40.2	12	11.1	2051	43.2	1895	47.7	1779	37.9	607	43.0	4713	42.9
ATLANTA	--	--	16	19.3	--	--	43	22.5	--	--	51	38.6	--	--	88	36.1	--	--	67	31.2	--	--	131	30.1
BALTIMORE	406	49.2	371	45.8	2	100.0	779	44.9	469	54.6	695	45.3	--	--	1165	48.7	877	52.1	1071	43.8	2	100.0	1953	46.6
BOSTON	NA	--	NA	--	NA	--	327	31.1	NA	--	NA	--	NA	--	432	33.9	NA	--	NA	--	NA	--	776	33.4
CLEVELAND	221	51.3	65	35.3	--	--	286	46.9	204	39.3	58	29.7	--	--	265	37.1	425	44.7	123	32.9	--	--	555	41.6
NEW ORLEANS	68	36.8	82	44.3	2	50.0	152	40.6	175	52.1	150	51.7	1	33.3	326	51.8	243	46.6	232	48.8	3	42.8	483	47.8
PITTSBURGH	385	70.4	106	46.3	4	80.0	495	63.4	456	78.9	163	57.0	5	50.0	624	71.4	848	75.4	271	52.6	10	66.7	1135	68.6
SAN FRANCISCO	63	34.6	26	25.7	76	44.2	214	36.4	90	49.7	65	37.8	81	57.4	265	45.9	153	42.1	91	33.3	157	50.2	511	40.4
SEATTLE	83	--	6	--	1	--	90	--	150	--	19	--	14	--	183	--	239	54.0	26	40.6	15	34.1	280	50.5
ST. LOUIS	NA	--	NA	--	NA	--	288	40.2	NA	--	NA	--	NA	--	547	48.4	NA	--	NA	--	NA	--	835	45.2
WASHINGTON, D.C.	8	61.5	151	35.3	4	40.0	163	36.1	4	66.7	349	49.2	4	66.7	357	49.5	12	63.2	500	44.0	8	50.0	528	44.0
CLASS 2 CITIES*	1234	52.7	823	40.6	89	45.6	2837	42.3	1548	56.4	1550	46.2	108	58.8	4252	47.6	2797	54.8	2381	43.3	199	50.1	7187	45.4
BIRMINGHAM	28	34.6	49	32.0	1	16.7	78	32.5	28	38.9	66	50.0	1	100.0	95	46.3	56	36.6	115	40.4	2	28.6	174	38.7
LOUISVILLE	111	44.6	62	28.7	1	16.7	174	36.9	177	56.2	110	34.0	--	--	287	45.0	288	51.1	174	32.3	2	33.3	466	41.8
MINNEAPOLIS	NA	--	NA	--	NA	--	26	60.5	NA	--	NA	--	NA	--	37	71.2	NA	--	NA	--	NA	--	165	67.3
NEWARK	38	35.8	39	26.9	2	25.0	79	30.5	132	51.8	133	32.4	2	50.0	267	39.9	170	47.1	172	31.0	4	33.3	356	37.0
ESSEX COUNTY	101	61.2	64	47.0	3	33.3	[illegible]	54.2	52	57.8	24	63.2	--	--	76	59.4	153	60.0	88	50.6	3	33.3	244	55.6
NORFOLK	64	55.6	26	40.0	3	100.0	[illegible]	50.8	117	67.6	40	54.8	1	100.0	158	64.0	181	62.8	67	48.6	4	100.0	253	58.6
OMAHA	200	--	9	--	0	--	209	--	261	--	13	--	0	--	274	--	481	45.7	25	18.9	1	100.0	510	43.0
PORTLAND	NA	--	NA	--	NA	--	358	55.7	NA	--	NA	--	NA	--	503	58.0	NA	--	NA	--	NA	--	967	57.4
ROCHESTER	NA	--	NA	--	NA	--	377	48.3	NA	--	NA	--	NA	--	336	53.9	NA	--	NA	--	NA	--	714	50.9
CLASS 3 CITIES**	542	47.8	249	33.6	10	31.2	1562	46.2	767	55.9	386	38.2	4	66.7	2033	51.3	1329	49.7	641	35.2	19	48.7	3849	48.6
ALL CITIES COMBINED	2676	49.4	1799	37.1	640	44.5	6567	42.7	3305	53.4	2984	42.8	124	40.1	8336	47.1	6021	51.2	4801	40.0	825	44.7	15749	45.4

* Percent returns based upon total mailed minus Seattle.

** Percent returns based upon total mailed minus Omaha.

*** OTHER: Includes all other racial groups.

The total response rate for females was 47.1%, about 5.6% better than for the males. The difference is statistically significant, but not so great as to create a problem with sex comparative data. Within the female category, the overall return percentages for white, black and other races were 53.4%, 42.8% and 40.1% respectively. The pattern confirms the pattern for the males, and, possibly, we have the same problem of a differential non-respondent bias in the female data.

We conclude that there are significant differences in rates of return by sex and race. Such differences raise the possibility of differential degrees of non-response bias inherent in the population parameter estimates for sex and race data that will add to the problem of interpreting such data for comparative purposes.

RESPONSE ANALYSIS BY VOCATIONAL PROGRAM

Table 2.7 provides an analysis of the survey returns from each city in terms of type of vocational programs. The percentages are based upon the total students surveyed that could be classified as to type of program. The "All Cities Combined" returns range from a low of 38% for agricultural occupations to a high of 58% for technical occupations. All other programs show returns between 45 and 50 percent, indicating a relatively uniform return rate except for the two extremes.

With the exception of the two extreme programs there is no likelihood of a differential non-response bias for the different program areas. It is interesting to note that the technical occupations programs, which usually enrolls relatively academically-competent students because of the mathematics and science emphasis in technical curricula shows the highest rate of response. This suggests that rate of response may be related to, among other variables, the academic achievement level of the graduates.

COMPOSITION OF SURVEY RETURNS

The composition of the survey returns in terms of city, and within city in terms of race and sex, and within city in terms of type of program is essential background data for those concerned with methodology. Others may prefer to skip this section.

TABLE 2.7 ANALYSIS OF SURVEY RETURNS BY VOCATIONAL PROGRAM[1]

CITY	TRADE/ INDUSTRIAL		TECHNICAL OCCUPATIONS		DISTRIB. EDUCATION		BUSINESS EDUCATION		HEALTH OCCUPATIONS		HOME ECONOMICS		AGRICULTURE OCCUPATIONS		UNCLASS. VOCATIONALS		TOTAL SURVEY RETURNS
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
CHICAGO	197	--	3	--	31	--	244	--	10	--	3	--	--	--	474	22.8	962
HOUSTON	272	37.0	3	21.4	113	42.5	299	46.4	34	43.0	33	37.9	14	31.8	4	20.0	772
NEW YORK	975	50.9	80	56.3	15	38.5	393	53.4	122	51.0	--	--	--	--	19	51.4	1604
PHILADELPHIA	287	37.3	63	49.6	138	41.3	689	42.2	14	38.9	23	42.6	36	46.8	125	33.1	1375
CLASS 1 CITIES	1731	47.8	149	52.1	297	44.3	1625	49.9	180	49.4	59	41.0	50	41.3	622	24.7	4713
ATLANTA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	131	30.1	131
BALTIMORE	451	64.4	92	71.3	37	52.8	985	48.4	34	48.4	0	0.0	6	46.2	348	29.3	1953
BOSTON	190	32.9	--	--	18	43.9	551	32.8	--	--	--	--	17	65.4	--	--	776
CLEVELAND	215	52.8	--	--	1	4.2	123	34.2	--	--	13	41.9	11	29.7	192	40.5	555
NEW ORLEANS	86	43.9	--	--	115	42.1	248	53.7	19	52.8	6	50.0	6	28.6	3	27.3	483
PITTSBURGH	372	68.8	83	63.4	132	62.0	461	74.2	18	52.9	63	62.4	--	--	6	42.8	1135
SAN FRANCISCO	204	36.6	--	--	13	54.2	286	43.3	1	33.3	2	22.2	2	28.6	3	75.0	511
SEATTLE	37	42.0	--	--	103	56.9	79	61.7	--	--	31	41.3	--	--	30	36.6	280
ST. LOUIS	93	41.5	--	--	291	38.5	233	55.5	--	--	--	--	--	--	218	48.8	835
WASHINGTON, D.C.	143	40.8	--	--	30	44.8	319	46.2	17	41.5	13	46.4	3	50.0	3	17.6	528
CLASS 2 CITIES	1791	49.2	175	67.3	740	44.9	3285	46.6	89	52.4	128	49.4	45	40.9	934	35.0	7187
BIRMINGHAM	75	34.2	--	--	18	25.0	47	45.2	--	--	22	52.4	--	--	12	92.3	174
LOUISVILLE	197	36.3	--	--	60	40.0	201	52.2	--	--	4	23.5	--	--	4	20.0	466
MINNEAPOLIS	90	63.8	--	--	38	66.7	37	78.7	--	--	--	--	--	--	--	--	165
NEWARK	34	34.0	--	--	11	28.9	308	38.0	--	--	--	--	--	--	3	25.0	356
ESSEX COUNTY	145	52.3	64	59.8	--	--	35	63.6	--	--	--	--	--	--	--	--	244
NORFOLK	91	63.6	--	--	15	42.8	129	64.5	5	41.7	--	--	6	54.5	7	22.6	253
OMAHA	215	39.7	10	34.5	49	39.2	229	50.6	--	--	--	--	7	18.4	--	--	510
PORTLAND	397	53.6	1	20.0	77	47.5	415	63.4	1	33.3	--	--	[illegible]	--	76	63.3	967
ROCHESTER	--	--	--	--	101	51.8	250	51.8	--	--	--	--	--	--	363	50.1	714
CLASS 3 CITIES	1251	46.2	75	53.2	369	44.2	1651	51.7	6	31.2	26	44.1	13	26.5	458	49.7	3849
ALL CITIES COMBINED	4773	47.9	399	58.1	1406	44.6	6561	48.6	275	50.1	213	46.1	108	38.6	2014	33.0	15749

[1] Shows the number and percentage of survey returns in each program field for each city, based upon the number of graduates surveyed in each program field for each city (see Table 2.3).

COMPOSITION OF SURVEY RETURNS BY RACE AND SEX OF GRADUATE

Table 2.8 provides a sex and race breakdown of the survey returns for each city. It is not possible to describe precisely the sex and race composition of the total survey returns because race and sex were not known for all cases. Missing race and/or sex data occurred because (1) the data was not available on the data tapes provided by some cities, (2) where cities used the pupil data form to provide individual graduate data, some students failed to mark race or sex on the form and (3) of those who did mark their race and sex, a small percentage made their marks incorrectly so that the optical scanner did not pick up race or sex.

Table 2.8 indicates a substantial missing data problem for race and sex. About 4102 cases (26%) could not be classified as to race; about 846 cases (5.4%) could not be classified as to sex; and 3256 cases (20.7%) could not be classified as to either sex or race.

What does this mean for the study. It means that the analysis of the survey data in terms of race and sex will be handicapped by a substantial percentage of missing cases which could not be included because race and/or sex was missing. It means that the parameter estimates obtained may be biased by unknown biases in the missing data. While we don't know of any such biasing factors, we can't be certain that the data has not been influenced by their operation. The best we can do is to bring the problem to the attention of the reader. (Some cities, of those who could not supply race data, are still under the impression that it is unlawful to identify race of students on official records. It is interesting that these are not the cities of the South. The latter were no problem with respect to identifying graduates by race. Without exception, they were most cooperative on the matter of race data.)

COMPOSITION OF SURVEY RETURNS BY TYPES OF PROGRAMS

Table 2.9 provides the number and percent of each city's returns in terms of the different basic programs. In six of the twenty-two cities, the graduates were merely identified as vocational or non-vocational. The questionnaire was designed to permit the graduate to write in the type of vocational

TABLE 2.8 COMPOSITION OF SURVEY RETURNS BY RACE AND SEX [1]

CITY	MALE								FEMALE								TOTAL							
	WHITE		BLACK		OTHER *		TOTAL		WHITE		BLACK		OTHER		TOTAL		WHITE		BLACK		OTHER		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
CHICAGO	3	0.3	237	24.6	168	17.5	408	42.4	31	3.2	394	41.0	0	0.0	425	44.2	34	3.5	632	65.7	168	17.5	962	37.4
HOUSTON	204	26.4	87	11.3	0	0.0	291	37.7	339	43.9	124	16.1	5	0.6	469	60.8	546	70.7	213	27.6	5	0.6	772	40.8
NEW YORK	390	24.3	152	9.5	357	22.2	899	56.0	211	13.2	163	10.2	6	0.4	380	23.7	602	37.5	315	19.6	417	26.0	1604	51.6
PHILADELPHIA	303	22.0	251	18.2	16	1.2	570	41.4	409	29.7	367	26.7	1	0.1	777	56.5	713	51.8	619	45.0	17	1.2	1375	40.3
CLASS 1 TOTAL	900	19.1	727	15.4	541	11.5	2168	46.0	990	21.0	1048	22.2	12	0.2	2051	43.5	1895	40.2	1779	37.7	607	12.9	4713	42.9
ATLANTA	--	--	46	12.2	--	--	43	32.8	--	--	51	38.9	--	--	88	67.2	--	--	67	51.1	--	--	131	30.1
BALTIMORE	406	20.8	371	19.0	2	0.1	779	39.9	469	24.0	695	35.6	--	--	1165	59.6	877	44.9	1071	54.8	2	0.1	1953	46.6
BOSTON	NA	--	NA	--	NA	--	327	42.1	NA	--	NA	--	NA	--	432	55.7	NA	--	NA	--	NA	--	776	33.4
CLEVELAND	221	39.8	65	11.7	--	--	286	51.5	204	36.8	58	10.4	--	--	265	47.7	425	76.6	123	22.2	--	--	555	41.6
NEW ORLEANS	68	14.1	82	17.0	2	0.4	152	31.5	175	36.2	150	31.0	1	0.2	326	67.5	243	50.3	232	48.0	3	0.6	483	47.8
PITTSBURGH	385	33.9	106	9.3	4	0.4	495	43.6	456	40.2	163	14.4	5	0.4	624	55.0	848	74.7	271	23.9	10	0.9	1135	68.6
SAN FRANCISCO	63	12.3	26	5.1	76	14.9	214	41.9	90	17.6	65	12.7	81	15.8	265	51.8	153	29.9	91	17.8	157	30.7	511	40.4
SEATTLE	83	29.6	6	2.1	1	0.4	90	32.1	150	53.6	19	6.8	14	5.0	183	65.4	239	85.4	26	9.3	15	5.4	280	50.5
ST. LOUIS	NA	--	NA	--	NA	--	288	34.5	NA	--	NA	--	NA	--	547	65.5	NA	--	NA	--	NA	--	835	45.2
WASHINGTON, D.C.	8	1.5	151	28.6	4	0.8	163	30.9	4	0.8	349	66.1	4	0.8	357	67.6	12	2.3	500	94.7	8	1.5	528	44.0
CLASS 2 TOTAL*	1234	17.2	823	11.4	89	1.2	2837	39.5	1548	21.5	1550	21.6	108	1.5	4252	59.2	2797	38.9	2381	33.1	199	2.8	7187	45.4
BIRMINGHAM	28	16.1	49	28.2	1	0.6	78	44.8	28	16.1	66	37.9	1	0.6	95	54.6	56	32.2	115	66.1	2	1.1	174	38.7
LOUISVILLE	111	23.8	62	13.3	1	0.2	174	37.3	177	37.9	110	23.6	--	--	287	61.6	288	61.8	174	37.3	2	0.4	466	41.8
MINNEAPOLIS	NA	--	NA	--	NA	--	26	15.8	NA	--	NA	--	NA	--	37	22.4	NA	--	NA	--	NA	--	165	67.3
NEWARK	38	10.7	39	11.0	2	0.6	79	22.2	132	37.1	133	37.4	2	0.6	267	75.0	170	47.8	172	48.3	4	1.1	356	37.0
ESSEX COUNTY	101	41.4	64	26.2	3	1.2	168	68.8	52	21.3	24	9.8	--	--	76	31.1	153	62.7	88	36.1	3	1.2	244	55.6
NORFOLK	64	25.3	26	10.3	3	1.2	93	36.8	117	46.2	40	15.8	1	0.4	158	62.4	181	71.5	67	26.5	4	1.6	253	58.6
OMAHA	200	39.2	9	1.8	0	0.0	209	41.0	261	51.2	13	2.5	0	0.0	274	53.7	481	94.3	25	4.9	1	0.2	510	43.0
PORTLAND	NA	--	NA	--	NA	--	358	37.0	NA	--	NA	--	NA	--	503	52.0	NA	--	NA	--	NA	--	967	57.4
ROCHESTER	NA	--	NA	--	NA	--	377	52.8	NA	--	NA	--	NA	--	336	47.0	NA	--	NA	--	NA	--	714	50.9
CLASS 3 TOTAL**	542	14.1	249	6.5	10	0.2	1562	40.6	767	19.9	386	10.0	4	0.1	2033	52.8	1329	[illegible]	641	16.6	19	0.5	3849	48.6
ALL CITIES COMBINED	2676	17.0	1799	11.4	640	4.1	6567	41.7	3305	21.0	2984	18.9	124	0.8	8336	52.9	6021	38.2	4801	30.5	825	5.2	15749	45.4

[1] Shows the number and percentage of survey returns by race and sex for each city, based upon the number of graduates surveyed in each category for each city (see Table 2.2).

* OTHER: Includes all other racial groups.

TABLE 2.9 COMPOSITION OF SURVEY RETURNS BY TYPE PROGRAM

CITY	TRADE/ INDUSTRIAL		TECHNICAL OCCUPATIONS		DISTRIB. EDUCATION		BUSINESS EDUCATION		HEALTH OCCUPATIONS		HOME ECONOMICS		AGRICULTURE OCCUPATIONS		UNCLASS. VOCATIONALS		TOTAL SURVEY RETURNS
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
CHICAGO (1)	197	20.5	3	0.3	31	3.2	244	25.4	10	1.0	3	0.3	--	--	474	49.3	962
HOUSTON	272	35.2	3	0.4	113	14.6	299	38.7	34	4.4	33	4.3	14	1.8	4	0.5	772
NEW YORK	975	60.8	80	5.0	15	0.9	393	24.5	122	7.6	--	--	--	--	19	1.2	1604
PHILADELPHIA	287	20.9	63	4.6	138	10.0	689	50.1	14	1.0	23	1.7	36	2.6	125	9.1	1375
CLASS I CITIES	1731	36.7	149	3.2	297	6.3	1625	34.5	180	3.8	59	1.2	50	1.1	622	13.2	4713
ATLANTA (1)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	131	100.0	131
BALTIMORE	451	23.1	92	4.7	37	1.9	985	50.4	34	1.7	0	0.0	6	0.3	348	17.8	1953
BOSTON	190	24.5	--	--	18	2.3	551	71.0	--	--	--	--	17	2.2	--	--	776
CLEVELAND (1)	215	38.7	--	--	1	0.2	123	22.2	--	--	13	2.3	11	2.0	192	34.6	555
NEW ORLEANS	86	17.8	--	--	115	23.8	248	51.3	19	3.9	6	1.2	6	1.2	3	0.6	483
PITTSBURGH	372	32.8	83	7.3	132	11.6	461	40.6	18	1.6	63	5.6	--	--	6	0.5	1135
SAN FRANCISCO	204	39.9	--	--	13	2.5	286	56.0	1	0.2	2	0.4	2	0.4	3	0.6	511
SEATTLE (1)	37	13.2	--	--	103	36.8	79	28.2	--	--	31	11.1	--	--	30	10.7	280
ST. LOUIS (1)	93	11.1	--	--	291	34.8	233	27.9	--	--	--	--	--	--	218	26.1	835
WASHINGTON, D.C.	143	27.1	--	--	30	5.7	319	60.4	17	3.2	13	2.5	3	0.6	3	0.6	528
CLASS 2 CITIES	1791	24.9	175	2.4	740	10.3	3285	45.7	89	1.2	128	1.8	45	0.6	934	13.0	7187
BIRMINGHAM	82	47.1	--	--	18	10.3	47	27.0	--	--	22	12.6	--	--	5	2.9	174
LOUISVILLE	197	42.3	--	--	60	12.9	201	43.1	--	--	4	0.9	--	--	4	0.9	466
MINNEAPOLIS	90	54.5	--	--	38	23.0	37	22.4	--	--	--	--	--	--	--	--	165
NEWARK	34	9.6	--	--	11	3.1	308	86.5	--	--	--	--	--	--	3	0.8	356
ESSEX COUNTY	145	59.4	64	26.4	--	--	35	14.3	--	--	--	--	--	--	--	--	244
NORFOLK	91	36.0	--	--	15	5.9	129	51.0	5	2.0	--	--	6	2.4	7	2.8	253
OMAHA	215	42.2	10	2.0	49	9.6	229	44.9	--	--	--	--	7	1.4	--	--	510
PORTLAND	397	41.0	1	0.1	77	8.0	415	42.9	1	0.1	--	--	--	--	76	7.8	967
ROCHESTER (1)	--	--	--	--	101	14.1	250	35.0	--	--	--	--	--	--	363	50.8	714
CLASS 3 CITIES	1251	32.5	75	1.9	369	9.6	1651	42.9	6	0.2	26	0.7	13	0.3	458	11.9	3849
ALL CITIES COMBINED	4773	30.3	399	2.5	1406	8.9	6561	41.6	275	1.7	213	1.4	108	0.7	2014	12.8	15749

1. Graduates were identified either as vocational or non-vocational in these cities. Students that returned questionnaires indicated the actual course they took.

program completed. However, large numbers failed to write in an identification of their vocational program. As a result, 2014 or 12.8% of the cases could not be classified as to type of program completed.

A much larger percentage of graduates could not be associated with a specific occupation within their program area. For example, several cities could only identify graduates as being in Business Education, or Gainful Home Economics or Trade and Industrial without specifying the occupational curriculum completed. In all, about 6 percent of the vocationals surveyed could not be classified in terms of a specific curriculum. The bulk of this problem arose because those cities who refused to use the Pupil Data form (See Figure 2.2) and insisted upon providing us with a computer tape did not have the curriculum of the graduate identified on the tape. Further efforts to attain the curriculum information from the school systems whose tapes were lacking the information revealed that they could not have given the data without conducting a special research effort of their own. Many cities simply don't attach much importance to the capability of associating the name of a graduate with the vocational curriculum that he completed.

COMPOSITION OF SURVEY RETURNS BY TYPES OF OCCUPATIONS

Table 2.10 provides the occupation comparison of the follow-up survey returns. There are only 27 occupations with 100 or more cases. This illustrates the difficulty of doing a meaningful analysis of vocational follow-up data for specific occupations. These cases include the returns of graduates in the military service, in college, in schools other than college, in full-time employment, unemployed and looking for work, unemployed and not looking for work and pursuing a home career. There are simply not enough cases in most occupational categories to warrant an attempt to develop analyses by occupations. The cell N's would be too small to generate stable percentages.

The reader is reminded that the table represents the returns for twenty-two cities. No one city has such an array of vocational course offerings.

TABLE 2.10. OCCUPATIONAL COMPOSITION OF FOLLOW-UP SURVEY RETURNS

PROGRAM/CURRICULUM	N	%[1]	%[2]
TRADE AND INDUSTRIAL	4773	34.8	--
Air conditioning	33	0.2	0.7
Appliance repair	23	0.2	0.5
Auto body repair	81	0.6	1.7
Auto mechanics	306	2.2	6.4
Auto occupations	81	0.6	1.7
Aviation occupations	214	1.6	4.5
Building construction	21	0.2	0.4
Business machine repair	14	0.1	0.3
Carpentry	116	0.8	2.4
Ceramics	2	*	0.1
Commercial art	289	2.1	6.0
Commercial photography	5	*	0.1
Cosmetology	312	2.3	6.5
Diesel mechanic	14	0.1	0.3
Diversified coop	83	0.6	1.7
Drafting	445	3.2	9.3
Dressmaking	118	0.8	2.5
Electrical occupations	415	3.0	8.7
Electronics occupations	57	0.4	1.2
Equipment repair	21	0.2	0.4
Fabric maintenance	8	0.1	0.2
Fashion trades	52	0.4	1.1
Fluid power (hydraulics)	3	*	0.1
Food Service occupations	113	0.8	2.4
Foundry	11	0.1	0.2
Jewelry design	5	*	0.1
Machine tool operator	10	0.1	0.2
Machine shop	274	2.0	5.7
Maritime trades	5	*	0.1
Masonry	26	0.2	0.5
Metal trades	64	0.5	1.3
Mill/Cabinetry	169	1.2	3.5
Mine Maintenance	1	*	0.1
Optics	7	0.1	0.1
Painting/Decorating	18	0.1	0.4
Patternmaking	24	0.2	0.5
Plumbing	35	0.2	0.7
Power sewing	36	0.3	0.8
Printing/Graphic arts	313	2.3	6.6
Radio/Television	184	1.3	3.8
Sheet metal	55	0.4	1.2
Shoe repair	14	0.1	0.3
Small engine repair	17	0.1	0.4
Tailoring	47	0.3	1.0
Teacher aide	3	*	0.1
Textile products	4	*	0.1
Tool & Die design	16	0.1	0.3
Upholstery	14	0.1	0.3
Watch repair	6	*	0.1
Welding	70	0.5	1.5
Woodworking	22	0.2	0.5
Work experience	26	0.2	0.5
Work-study	148	1.1	3.1
T & I unspecified	323	2.4	6.8
TECHNICAL OCCUPATIONS	399	2.9	--
Architectural technology	20	0.1	5.0
Automotive technology	3	*	0.8
Aeronautical technology	11	0.1	2.8
Automation technology	6	*	1.5

PROGRAM/CURRICULUM	N	%[1]	%[2]
Chemical technology	4	*	1.0
Electrical technology	41	0.3	10.3
Electronics technology	152	1.1	38.1
Engineering technology	3	*	0.8
Environmental technology	3	*	0.8
Industrial technology	2	*	0.5
Instrumentation technol.	2	*	0.5
Lab assistant technology	9	0.1	2.2
Mechanical Draft/Design	46	0.3	11.5
Manufacturing technology	10	0.1	2.5
Mechanical technology	1	*	0.2
Nuclear technology	2	*	0.5
Radio/Television	12	0.1	3.0
Scientific data process.	6	*	1.5
Tool & Die technology	2	*	0.5
Welding technology	1	*	0.2
Technical unspecified	63	0.4	15.8
DISTRIBUTIVE EDUCATION	1406	10.2	--
BUSINESS EDUCATION	6561	47.8	--
Bookkeeping/Accounting	606	4.4	9.2
Business Educ. General	1627	11.8	24.8
Business data processing	261	1.9	4.0
Business/Distrib. educ.	174	1.3	2.6
Business/Office	188	1.4	2.9
Clerical practice	85	0.6	1.3
Clerk-typist	691	5.0	10.5
General clerical	934	6.8	14.2
Office machines	98	0.7	1.5
Steno/Secretarial	1315	9.6	20.0
Vocational office	187	1.4	2.8
Business upspecified	395	2.9	6.0
HEALTH OCCUPATIONS	275	2.0	--
Dental assistant	18	0.1	6.5
Health assistant	6	*	2.2
Medical assistant	39	0.3	14.2
Medical lab assistant	6	*	2.2
Nursing Asst/Aide	8	0.5	2.9
Practical nurse	139	1.0	50.5
Health unspecified	59	0.4	21.4
GAINFUL HOME ECONOMICS	213	1.6	--
Child care/Guidance	49	0.4	23.0
Clothing services	33	0.2	15.5
Food services	82	0.6	38.5
Gain. Home Ec. unspecified	49	0.4	23.0
AGRICULTURE OCCUPATIONS	108	0.8	--
Agriculture mechanics	2	*	1.8
Agriculture production	21	2.0	19.4
Agriculture products	3	*	2.8
Agriculture resources	3	*	2.8
Animal technology	13	0.1	12.0
Horticulture	40	0.3	37.0
Agricultural unspecified	26	0.2	24.1
UNCLASSIFIED VOCATIONALS	2014	12.8	--
TOTAL VOCATIONALS	15749	100.0	--

*Percentages less than .05.

[1] Percentages are based upon total survey returns minus number unclassified by program because of insufficient data from participant school districts.

[2] Percentages are based upon total survey returns within each program.

In terms of basic programs, the returns are broken down as follows:

	N	%
Trade and Industrial	4773	34.8
Technical Occupations	399	2.9
Distributive Education	1406	10.2
Health Occupations	275	2.0
Gainful Home Economics	213	1.6
Agriculture	108	.8
Business Education	6561	47.8
Unclassifiable Vocationals	2014	12.8
Total	15749	100.0

The apparent underrepresentation of some programs reflects the small enrollments in those fields. The survey is predominantly trade and industrial and business education because that's the way major city vocational education breaks down.

THE NON-RESPONDENT BIAS PROBLEM

THE NATURE OF THE PROBLEM

Normally, one thinks of survey statistics as population parameter estimates, i.e., what the statistics would be if all surveyed were respondents and the responses given were reliable and valid. With this viewpoint, when a survey has a substantial percentage of non-response, there is always the possibility that a serious non-respondent bias exists in the data. In other words, the so-called parameter estimate may have been substantially different had all persons surveyed responded with a completed questionnaire.

The procedure normally used to overcome the non-respondent bias is to take a small random sample of the non-respondents and make an intensive effort, usually personal interview, to get all or at least a very large percentage of "correction sample" subjects to provide the data, i.e., to become respondents. The data so derived may be used to correct mathematically the main survey sample parameter estimates for possible non-response bias.

The procedure is not without problems. For one, it is usually impossible, with the kind of population herein surveyed, to get 80 to 90 percent, much less 100 percent of the correction sample to become respondents where the population is in major metropolitan areas and a heavy proportion of the non-respondents are minority group members. It is even more of a problem to get the cooperation of the correction sample non-respondents when the survey has made several mail efforts to secure the return of the questionnaire. The non-respondents include many who resent further efforts to obtain information from them. The end result may be a costly experience that does not quite succeed, and a procedure that goes through the motions of correcting the parameter estimates. A second problem is the possibility that the very process of obtaining the data from the correction sample by personal or telephone interviews may bias the respondents. Persons may be more willing to respond truthfully on a questionnaire than in a person to person interview with a stranger. The methodology of non-respondent bias correction has never recognized this problem.

These two factors plus the very considerable expense of hiring an interview service in twenty-two major cities were part of the total consideration that led to the decision not to attempt a correction sample survey of the non-respondents. There were, however, several other factors that influenced this decision. These should be made clear.

PRIOR EXPERIENCE WITH THE CORRECTION SAMPLE METHOD

The writer has applied the recommended non-respondent bias correction of survey population parameter estimates in two major surveys dealing with vocational program high school graduates:

1. The Process and Product Survey (2). About 11,000 trade and industrial vocational program graduates from a national sample of 100 secondary schools were surveyed in 1964. The survey sample involved graduates from the Classes of 1962, 1958, and 1953. Overall, the response rate was 50.5 percent with 24.5 percent address unknown cases and 25 percent non-respondents, i.e., received questionnaire but did not return it. A 10 percent correction sample of the address unknown cases and 10 percent correction sample of the "non-respondents" was applied. Personal interview was the method for obtaining the data. The return

rate for the "address unknown" was 50 percent; that for the "non-respondents" was 69 percent. (Note that despite an intense search, find and interview procedure, the return rate was low compared with the textbook ideal.

Significance of differences tests were applied to the twenty-one parameter estimates obtained from the initial mail survey and the correction sample interview survey for each of the three graduating classes. Of the total sixty-three tests of significance of difference, three were found to be significantly different at the one percent level of confidence and eight were significantly different at the five percent level of confidence. From a practical standpoint, the differences were negligible. Nevertheless, the parameter correction estimate procedure was applied to those variables for which a statistically significant difference was found. As an illustration of the practical insignificance of the parameter estimate changes measure of mean relatedness of job held to course studied changed from 2.4 to 2.2, indicating that there was a slight deterioration in the percentage of graduates employed in the field of study when the correction example results were "added" to the main survey sample. The differences in no way influenced the generalization or conclusion drawn.

2. The Project Metro Class of '68 Study (9). About 17,600 Class of '68 graduates of all vocational programs in thirteen major cities were surveyed about a year and a half after graduation. The response rate was 40 percent, with about 12 percent being address unknown, non-response cases and the balance (48%) assumed true non-response cases. The same procedure was followed as was used in the Process and Product study. The correction sample returns were 63 and 70 percent respectively for the address unknown and non-respondent subsamples, indicating the correction procedure was open to question to begin with (The writer is of the opinion that it is impossible to get an adequate response rate on a correction sample survey in major cities with a high percentage of minority group members in the survey sample. The only variable that yielded a statistically significant difference was relatedness of job held to course studied, confirming the

earlier finding that there is some non-respondent bias on this variable. The differences were not significant from a practical standpoint. The differences between the corrected parameter estimates and the original parameter estimates were negligible from a practical standpoint of altering generalizations and conclusions.

The findings of these two studies with respect to the non-respondent bias problem also contributed to the decision not to attempt a similar exercise for the Class of '70 survey. There was one final consideration that remains to be discussed.

THE NEED FOR PRECISE POPULATION PARAMETER ESTIMATES IN SURVEYS

The purpose of the vocational program graduate follow up survey is primarily to either (1) determine whether the reported post-school experiences of the graduates reveal problems that are relatable to the educational process or (2) determine whether there has been any progress with respect to reducing problems revealed by prior, comparable surveys. The latter was not a consideration in the Class of '70 survey because this class left school in a recession economy compared with the Class of '68 survey graduates which left school when the economy was still at a high level. Thus, we are looking at the survey data to see whether there are problems with respect to the basic objectives hypothesized for public vocational education as well as related matters. Do we need, then, precise population parameter estimates that are free from non-response bias? We think not. If we find that 60 percent of the employment bound graduates are not employed in the field for which trained, then we have established the existence of a serious problem, and our conclusion will not be altered by applying any further effort to reduce non-response bias in a way that, based upon past findings, will increase that percentage possibly five percent. This does not have to be an opinion judgment. Knowing what one wants to do with the data, one looks at the data and draws the conclusion whether an effort at non-respondent bias correction is warranted. We did exactly that and decided against any such effort.

CHAPTER 3. PRESENTATION AND DISCUSSION OF SURVEY FINDINGS

ORGANIZATION OF CHAPTER

The survey findings are discussed in this section for each questionnaire item taken in sequence. The data tables referred to in the discussion appear in later sections of the report. The reason for this arrangement is to have tables physically grouped according to the type of analysis applied to the data. Thus, if the reader is concerned primarily with the individual city data, he will find all such tables organized in questionnaire item sequence in Chapter 5. The salient data from each table for each of the comparative issues is highlighted and discussed in the present chapter with references to tables located in later chapters. This treatment should facilitate rather than hinder the discussion of the results because the tables usually present a mass of data that the reader does not really have to comprehend in order to arrive at the generalizations to be drawn from the tables.

The present chapter is divided into the following sections:

1. Order of Vocational Course Choice
2. Sources of Influence on Vocational Course Choice
3. Pre-Course Information about Vocational Course
4. Pre-Course Plans for Employment in Occupation Studied
5. Present Employment, Education or Other Status
6. Stability of First Job After High School
7. Time Required to Get First Full-Time Job
8. Methods Used to Obtain First Full-Time Job
9. Types of Present Jobs Held
10. Relation of Present Job to H. S. Vocational Course
11. Rating of Vocational Course Preparation for Present Job
12. Main Reason for Not Getting Job in Field of Study
13. Present Hourly Rate of Pay
14. Relation of Present Studies to H. S. Vocational Course
15. Discussion of Educational Plans with Counselors
16. Present Location Relative Residence During H. S.
17. Analysis of Relationships Between Survey Items

Each of the above items will be discussed in terms of the following comparative data issues:

1. Comparison between city classifications
2. Comparison between individual cities
3. Comparison between basic types of vocational programs
4. Comparison between black and white graduates
5. Comparison between female and male graduates
6. Comparison between those in and out of field of study

In addition, comparative data for vocational, general and academic graduates will be presented and discussed for questionnaire items that warrant comparative analysis.

MORE ABOUT THE COMPARATIVE ISSUES

THE CITY SIZE (POPULATION) ISSUE

To what extent are there substantial follow-up survey data differences between Class I cities (Over 1,000,000 population), Class II cities (Between 500,000 and 1,000,000) and Class III cities (Between 250,000 and 500,000)?

The question is related to the issue of school district size and the quality of education. The past several years have seen a trend toward decentralization in major cities. The intent is to move decision-making authority and responsibility closer to those who must carry out policies and to those who will be affected by policies. Underlying this trend is the suspicion that centralized authority in large school districts results in an unwieldy management structure that is unresponsive to community needs and ineffective in solving the serious educational problems. The decentralization solution, in effect, seeks to make many small school districts out of the large metropolitan school districts.

We have no direct data inputs to the decentralization issue. However, we can compare the three classes of school districts to see if there are trends in the data that support the contention that smaller school districts perform better than the super school districts. The absence of significant differences would not discredit the concept of decentralization. It would, however, raise some questions about the availability of data to support the claims for decentralization. An earlier study of ours (1) found no impressive differences between small, medium and large enrollment schools in terms of graduates' post-high school experiences. The same study found no significant differences between small, medium and large classes in terms of similar outcomes. Perhaps, in terms of the things that matter educationally, there are no substantial differences between small, medium and large major city school districts.

THE INDIVIDUAL CITY DIFFERENCES ISSUE

To what extent are there substantial individual city differences in the kinds of data reported? Where the data reflects the existence of a problem, it is useful to know the extent to which there are individual city differences. Where there are no such differences, we know that the underlying causes are operating equally in all cities, and that the problem pervades the whole of major city vocational education. Where there are marked individual city differences, we know that some cities are possibly doing a better job than others and can follow-up to understand the why and how of the differences.

Originally, we had not planned to identify cities with their data. We concluded that the small embarrassment that some might experience was far outweighed by the benefits to the participant cities. Identifying the cities with their data makes possible further efforts to dig deeper to understand why. Why, for example, do only three out of four graduates in one of the Class I cities report that they got the vocational course of their preferred choice? Obviously, here is a problem that requires further study, not only by the city concerned, but by objective-minded outside researchers who can raise additional questions, like: What special conditions may be responsible for such data? What administrative procedures, if any, cause 25% or more of the vocational enrollees to be in a vocational curriculum other than their first choice?

If we don't identify the problems (and the absence of problems with the cities) there is no opportunity for further study.

THE VOCATIONAL PROGRAM ISSUE

To what extent are there substantial differences between the basic vocational fields? Too many people react to vocational education as a homogeneous whole, not recognizing that there are distinct program fields like trade and industrial occupations, agricultural occupations, health occupations, distribution occupations and technical occupations. Each field is potentially a separate evaluation problem. Each field has characteristics other than the specific curriculum differences that may make it more or less effective than others. In most cities, the different fields came under different administrative heads who reflect different vocational education outlooks. Survey findings that are not classified by vocational field run the risk of losing the interest of those vocational educators who are associated with a specific field. Each is naturally most concerned with data about his own field.

For such and other reasons, comparative data is presented on the vocational fields. The data is not presented as a contest to see which vocational field is "best". They differ too much in some characteristics to permit "fair" comparisons. Gainful home economics, for example, draws heavily in some school systems from the so-called disadvantaged. Technical occupations, on the other hand, draws from the more academically competent. They are not strictly comparable on factors like post-high school earnings because of the nature of the students and occupations involved.

THE RACE DIFFERENCES ISSUE

To what extent are there substantial differences between black and white graduates on the data reported? The question must be raised because vocational educators make no bones about the need to involve the "target populations", "the disadvantaged", etc. into vocational programs. Such students, one must frankly admit, are improbable candidates for higher education. High school may be their last opportunity to acquire a salable, occupational skill. Increased employability is their way up the ladder to self-respect and self-sufficiency. So goes the reasoning and it is not unsound. However, face validity is not enough. We need some hard data. Do blacks derive the same benefits as do whites? Does the vocational education process treat them equally? And when they complete their programs, does the employer community act as if occupational entry-level skills were what mattered, not the color of the applicants skin?

A word of caution. We do not have a data analysis design or method that holds all other relevant factors constant while exploring the race variable. We shall interpret the differences without worrying too much that our groups are not equated for intelligence, grades, achievement scores, interests, ambitions, personalities, personal manners, poise, charm, influence and other factors. In this area, we gladly pass the baton on to the researchers who are sure to follow. We shall simply apply our best judgment to the data.

THE SEX DIFFERENCE ISSUE

To what extent are there substantial differences between male and female graduates in the survey data reported? What do the differences imply for changes in vocational education? The issue is certainly topical. Women's Lib critics not withstanding, there is growing concern with our sexist society. One can't turn down the opportunity to explore sex differences in such matters as opportunity to enroll in the vocational course of one's choice, adequacy of occupational information at time of course choice, help giving by school personnel in job placement and other such variables.

THE JOB RELATEDNESS ISSUE

To what extent are there substantial differences between those who enter occupations in the field for which trained and those who do not? What do such differences tell us about the problems in major city vocational education? Are those who enter their field of study better off than those who don't?

We have argued that vocational education should seek to improve the placement of qualified and interested graduates into the occupations studied because it follows logically from the manpower conversion equation and our earlier findings (2) showed that those so placed were indeed better off in employability, earnings, earnings progression, professed job satisfaction and employer stability. The short-time nature of our follow-up survey prevents an adequate comparison of which group is better off. Even so, some data does bear on the issue.

More important than which group is better off is the opportunity to identify variables which are related to whether or not graduates will enter the field for which trained. For example, does getting the vocational course of one's choice have any bearing on whether one is likely to enter the field for which trained? The comparative data will tell the story.

I. ORDER OF CHOICE FOR VOCATIONAL COURSE TAKEN

INTRODUCTION TO THE TOPIC

QUESTION RATIONALE

Did you get to take the occupational (vocational) course of your choice? The rationale for including this question in the Class of '70 follow-up survey is as follows: The manpower conversion model views vocational education as a major supplier of skilled manpower. From that model, it is argued that vocational education should adopt the specific objective of increasing the percentage of employment-bound vocational program graduates who want employment in their vocational field of study. It seemed reasonable to assume that one of the essential prerequisites for graduates to want to be employed in their recently completed field of study is that they initially wanted the vocational course in which they enrolled. Enrollment in a vocational course does not necessarily mean the student is in the course of his choice. There are many sources that may influence a student against his wishes, e.g. teachers, parents, counselors and other school personnel. There are also conditions that may keep a student out of the vocational course of his preference, e.g. more would-be enrollees than available space, course enrollment prerequisites that screen out students who wish to enroll, state or local standards that limit teacher-pupil ratios and so on.

A student who ends up in a vocational course that he really does not want is not likely to want to make a career in the vocational field of study. Thus, if a large percentage of the vocational graduates did not get the course of their real interest, it follows that a large percentage of those that are employment-bound will, despite their vocational education, approach the labor market without a marketable skill for the simple reason that they don't want employment in their field of study. The outcome is a loss of entry-level skilled manpower to the economy and a lost career opportunity for the graduate.

There is also another matter. The school dropout rate among vocational program students in major cities is still a substantial problem. Schreiber's study estimates the rate to be about 35 percent.[1] Not getting the vocational course of his choice may be a factor that predisposes a student toward dropping out of the course or the school. We have no data to support the implied hypothesis, but it is reasonable and should be investigated.

PRIOR STUDY FINDINGS

A follow-up survey done in 1964 of the Class of '53, '58, and '62 vocational program graduates selected from a national stratified sample of 100 schools offering trade and industrial programs indicated that (1) the schools did not necessarily offer the vocational curricula that the graduates had wanted to pursue and (2) even when the desired curriculum was offered, the graduates did not necessarily get to take the desired course (1). In terms of percentages, the problem did not appear to be serious.

The issue of whether students get the vocational curriculum of their first choice was further explained in the Project Metro follow-up survey of the Class of '68. That survey involved 12 of the 22 cities included in the Class of '70 follow-up survey herein reported. The finding suggested that there might be a serious problem in major city vocational education in terms of students getting the vocational course of their choice. Among the 13 cities, the percentage of graduates who reported that they got the vocational course of their first choice ranged from a low of 64.6% (San Francisco) to a high of 86.6% (Louisville) with a median 76.3% for all cities. Moreover, there is reason to believe that the percentages would have been even less favorable had all graduates responded to the follow-up survey. Clearly, there seems to be a problem of serious magnitude if the data can be accepted as a valid indication of students getting the vocational course of their choice.

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[1] Schreiber, Daniel. Guidance and The School Dropout. Washington: National Education Association, 1964.

The preceding rationale and survey findings determined that the question would be included in the Class of '70 follow-up survey instrument.

PRESENT SURVEY FINDINGS

ANALYSIS FOR COMBINED GRADUATES

Table 4.1 indicates the number and percentage of the combined vocational graduates who reported that they got the vocational course of their first, second, or third choice or that no choice was available. About 78% reported that they did indeed get the vocational course of their first choice. About 11% reported that they got the course of their second choice. Only 3% reported a third choice course. However, almost 9% claimed they had no choice available. When about 1 out of every 5 graduates reports he did not get the vocational course of his first choice, we can conclude the problem is of a serious magnitude. In the subsequent sections, the problem will be analyzed in terms of such independent variables as city size classification, individual cities, types of vocational programs, race of graduates, sex of graduates and, most important, relationship to whether the employment-bound graduates do enter the occupational field for which trained. General conclusions and recommendations will be reserved for a later section.

ANALYSIS BY CITY CLASSIFICATION

Table 4.1 also shows the results obtained for each of the three classifications of cities. The data has a bearing on whether school district size is related to the problem of students getting the vocational course of their preference. The study assumes total city population as revealed by available census data as an indirect measure of school district size, i.e. total pupil enrollment and the corresponding school district organization to service the pupils enrolled.

The graduates who reported that they received the vocational course of the first choice was 78.2%, 77.8% and 78.6% respectively for Class I, II and III cities taken as a group. The comparable percentages for second and third choice, and no choice available were no more than one or two percentage points apart. Clearly, school district size as reflected by city size (population) is unrelated to the problem of students getting the vocational course of their preferred choice. The Class III cities taken as a group and representing the smaller major cities don't do any better in terms of providing students with the vocational course of their choice than do the Class I super cities whose school administrative structure is often criticized as being too large to be responsive to change. David and Goliath seem to have the same problem.

ANALYSIS BY INDIVIDUAL CITY

Table 5.1 shows how the graduates from the twenty-two major cities responded to the question. The percentages for those who reported getting the vocational course of their first choice ranged from a low of 64.5% (St. Louis) to a high of 84.7% (Boston) with a median percentage of 77.7% versus the all cities combined percentage of 78. A look at the percentages for those who claimed that they had no choice ranges from a low of 3.2% (Minneapolis) to a high of 18% for St. Louis, with a median percentage of 9.3% and an all cities combined percentage of 8.5.

Despite the substantial differences between some individual cities, which indicate that some do a better job than others in assuring students of the preferred vocational course, the overall pattern of the data is impressive for the similarity rather than the differences in percentages. If we accept the standard of ten percent of the students not getting the vocational course of their choice as a tolerable status, then all 22 cities have a problem that requires their attention.

ANALYSIS BY TYPE OF PROGRAM

Table 6.1 indicates how graduates from each of the seven vocational program classifications answered the question. The percentages for those reporting that they got the vocational course of their first choice ranged from a low of 66.4% (Gainful home economics) to a high of 86.3% (Technical occupations). Three program areas stood below 70% for first choice, i.e. distributive education, gainful home economics and vocational agriculture.

(The low number of cases in the latter may cause some to question the reliability of the percentages.) These program areas can be said to have a serious problem -- about 30 percent of the graduates did not get the vocational course of their first choice -- unless the problem runs across programs, i.e. students want to enroll in a vocational course in one program field but are influenced, persuaded, forced, etc. into an entirely different program field. (There is some evidence that gainful home economics courses are being used for a population of students that are judged not to have the ability to succeed in other program areas.) Unfortunately, the occupations toward which much of gainful home economics is directed, with some few exceptions, are relatively low paying occupations (waitress, waiter, restaurant help, etc.) that require relatively little formal training. Quite possibly, the first vocational course choice of many students doesn't coincide with such low status occupations. It is one thing to enlarge the range of vocational course offerings to meet the range of abilities inherent in the student population served, but it is another thing to convince those of a low achievement level that they are the ones who should be taking the courses designed to accommodate low achievers. Unfortunately for administrative nicety, low achievement does not necessarily mean low aspiration.

ANALYSIS BY RACE

Are black students getting the vocational course of their first choice to the same extent as are white students? If not, why not? Table 7.1 indicates how the graduates of each race responded to the question. For all programs combined, a substantially higher percentage of white than black graduates reported getting the vocational course of their first choice 84.3% (White) vs. 70.4% (Black). Thus, percentagewise, twice as many blacks did not get the vocational course of their first choice as was the case for the whites. The comparative data for the individual program fields substantiates the generalization. Without exception, the whites in each program field report a greater percentage of getting the vocational course of their first choice than do the black graduates. The percentage differences range from a low of about 8% for Health Occupations to a high of 18% for Distributive

Education. About 4 out of every 10 black graduates of distributive education and home economics programs did not get the course of their preferred choice. By what strange logic are the interests of the black students being served by placing them where they don't want to be. What is happening here? We don't have the supporting data, but we can speculate to open up a line of inquiry. We think that many black students are being advised, counseled, influenced and possibly even pushed into vocational courses that are not of their liking because persons in school or out have decided that they have limited capabilities and are therefore precluded from success in a vocational course more to their liking. In short, the problem of the disadvantaged black is being solved by externally-imposed career decisions that will, as we shall show, assure that he remains disadvantaged after he leaves high school. Notice also the greater percentage of blacks who reported they had no choice available, e.g. 5.8% (Whites) vs. 10.4% (Black) for all graduates combined. Not only is the black student less likely to get the vocational course of his first choice, he is also twice as likely to report that he had no choice available. More will be said about the problem in a later section.

ANALYSIS BY SEX

Are male and female students equally likely to get the vocational course of their preferred (first) choice? Table 7.1 provides the data for the question. For the combined program data, there does not appear to be a significant sex difference. The percentage of males and females who reported that they got the vocational course of their first choice was 76.3% and 79.2% respectively. The comparable second and third choice percentages were respectively 10.2% vs. 10.8% and 3.1% vs. 2.6%. The percentage of males claiming that they had no choice available was 10.4% versus 7.4% for the females.

The picture is somewhat different when one examines the comparative data within the individual program fields. The data seem to support the following generalization. Those program fields most commonly associated with male occupations show a higher percentage of males reporting they got the vocational course of their first choice, and conversely, those program fields most commonly associated with female occupations show a higher percentage of females that got the vocational course of their first choice. The differences are greater than 10 percent in four of the six program areas.

ANALYSIS BY RELATEDNESS OF EMPLOYMENT

How do graduates presently employed in and out of their vocational field of study compare in terms of having had the vocational course of their first choice? The question is of critical importance. If the employment outcome in terms of relatedness of employment to vocational course studies is unrelated to the issue of vocational course choice, then perhaps ours has been a tempest in the proverbial teapot. Table 9.1 provides the data, and there does seem to be a relationship. For males employed in their field of study (same occupation studied or a highly related occupation) the percentage reporting first, second, third and no choice was respectively 89.1, 7.2, 1.8 and 1.8 percent. The comparable percentages for males employed out of the field of study was 71.6, 11.1, 3.9 and 13.4 respectively. The difference is marked. Almost 30 percent of the males employed out of their field of study reported they did not get the course of their choice. Only 11 percent of those employed in their field of study reported that they did not get the vocational course of their first choice.

The same pattern prevails for the females. About 91% of those employed in the same field that they studied reported that they did get the vocational course of their first choice, whereas only 77% of those employed outside their field reported the same.

The data can be stated somewhat differently to highlight the relationship of the 430 graduates, male and female, white and black, who reported they had the course of their third choice or that no choice was available to them, only 13% were employed in their occupational field of study. That is slightly better than one out of ten. Those are not very good odds for those at the bottom end of the course choice ladder. Comparable percentages for the whites only and the blacks only are respectively 11.3 percent and 15.5 percent.

Now, let's acknowledge that there is a question of which came first--the chicken or the egg. Did those graduates who found jobs in their field look back two years and recall what they thought was the better answer in view of their present employment? Conversely, did those who were not employed in their field of study take a sour grapes attitude that took the form of a complaint about vocational course choice? We don't think so, but we have no conclusive proof that excludes the operation of some rationalization mechanism.

Here's why we think the above interpretation is erroneous. Of the total 1206 graduates (8.5%) who reported they had no choice available (Table 4.1), only 304 were employed full-time at the time of the survey. The balance (902) were unemployed, employed part-time, in college or school, at home and unavailable for employment or in the military. If there was a rationalization mechanism conditioned by the relatedness of present employment to account for the reported choice differences, what kind of rationalization mechanism can be attributed to the majority of graduates who were not in a full-time employment situation at the time of the survey? No plausible explanation occurs to us. The simpler alternative is to say that, in the main, the vocational graduates told it like it was.

Now, to the major point. The data demands an explanation from major city school systems to account for the large percentage of students who do not get the vocational course of their choice. The truth is that the school systems do not collect such data. It is doubtful that a single major city school district keeps an annual tab on the percentage of vocational students who get the vocational course of their first choice. That is not to say that there is a lack of awareness of the problem. The problem is simply not documented with hard data. In the Alice-in-Wonderland sense that often characterizes public education, if the problem is not documented, then who is to say there is a problem. And if there is no one to say that there is a problem, why act as if there was one.

More will be said about the problem in the next major section.

2. SOURCES OF INFLUENCE ON VOCATIONAL COURSE SELECTION

INTRODUCTION TO THE TOPIC

QUESTION RATIONALE

Aside from yourself, who influenced your vocational course choice the most? The rationale for including this question in the Class of '70 follow-up survey instrument is as follows: In theory at least, the selection of a vocational course is the selection of a career. In actual practice, we know this is not the case. The majority of the vocational program graduates do not follow the occupational field studied in high school. (Data on this point is presented in Section 10,p. 3-79. However, working within the framework of the manpower conversion model (Chapter I), we concluded that one of the basic vocational education objectives should be to improve the percentage of employment-bound vocational graduates who both want and find employment in their field of study. Earlier inquiries into the reasons given by those who either did not want employment in their field of study or who did not take employment in that field uncovered a general problem area of inadequate vocational guidance or pre-vocational orientation to the world of work. Students, in effect, discovered too late factors that made the occupation selected for study no longer attractive, e.g. low pay, poor opportunity for advancement, unacceptable working conditions, dislike for type of work involved and so on. This suggested, as did other findings, that career orientation and vocational guidance were more myth than reality in most secondary schools. We felt it essential therefore to continue probing the sources credited by vocational graduates as having been the most important influence on their vocational course choice. One would expect that the increased emphasis on career orientation and vocational guidance in the 1968 Vocational Act Amendments and the similar stream of consciousness out of the U. S. Office of Education might be reflected in an increase in the percentage of vocational students ready to credit school personnel with a significant influence on their vocational course choice.

PRIOR STUDY FINDINGS

We first put the question of who influenced the vocational course decision to Class of '53, '58 and '62 graduates in a 1964 follow-up survey (2). For the combined graduates, the most important sources of influence on vocational course selection ranked as follows: (1) job opportunities (27%), (2) parents (15%), (3) peer group friends (10%), (4) school teacher (6%), (5) school counselor (6%), (6) books and periodicals (4%), (7) siblings (4%), (8) family relatives (4%), with all other factors acknowledged by less than four percent of the graduates. Clearly, there were many "most important" sources of influence and most of them were unrelated to school. Also, the role of teachers and school counselors as course selection influences was relatively minor.

In the Project Metro follow-up survey of the Class of 1968, the question was again put to the graduates in a somewhat different way, i.e. How much influence did each of the following have upon your choice of your high school vocational course? Three answer categories were available, i.e. none, some or much. The sources and the percentage of students who answered much to each were •vocational teacher (27%) •non-vocational teacher (8%) •counselor (23%) •parents (34%) •siblings (13%) •relatives or friends (14%) •peer group friends (19%) •printed matter (16%) •job opportunities (38%).

It is interesting to note that the percentage of students who reported the listed sources as no influence at all were as follows: •vocational teacher (44%) •non-vocational teacher (67%) •school counselor (40%) •parents (27%) •siblings (64%) •family friends/relatives (58%) •peer group friends (42%) •printed matter (51%) •job opportunities (29%). What is striking are the percentages that claimed the school sources were no influence upon vocational course selection. Clearly, for a substantial majority of the vocational students school personnel, such as teachers, counselors or administrators, do not play much of a role in the vocational course selection decision, at least not as perceived by the graduates.

It is also interesting to note that job opportunities and parents ranked respectively first and second just as they did with the Class of 1953, 1958 and 1962. The data are not strictly comparable since the question was raised differently in the two surveys. Even so, the earlier finding that vocational course selection decisions are influenced by many sources both in and out of school was confirmed.

PRESENT SURVEY FINDINGS

ANALYSIS FOR ALL GRADUATES COMBINED

The Class of '70 graduates were asked, Aside from yourself, who influenced your vocational course choice the most? Table 4.2 shows how they answered the question. Ranked in order of percentage acknowledgment, the sources were: •parents (27%) •guidance counselor (15%) •peer group friends (14%) •vocational teacher (13%) •relatives/family friends (9%) •siblings (7%) •other school personnel (5%) and •some one other than above (10%). If we say that those who were acknowledged as the most important source of influence are equivalent to the major source of course selection influence to the graduates who so responded, then clearly only one-third of the graduates acknowledge school personnel as a major source of influence on vocational course selection. A two-thirds majority of the graduates reported outside of school sources as the major sources of influence on their vocational course selection decision. Even so, this represents a substantial improvement over comparable findings in the 1964 national sample follow-up survey, where only 30 percent of the graduates acknowledged school sources as the most important course selection influence.

The empirical question yet to be answered is, how are the employment outcomes related to the acknowledged sources of course selection influence. A later section will provide data on this point.

ANALYSIS BY CITY CLASSIFICATION

Do the factors acknowledged to influence vocational course choice the most change with increases in city size? Table 4.2 provides data that suggests the size of the school district is unrelated to percentage of graduates who acknowledge each source as the most important influence on vocational course choice. The pattern of percentages for the three classes of cities is essentially the same, with the possible exception that more students from Class II and Class III cities acknowledge counselors as the most important influence. The combined percentages for all school personnel is 33.1, 34.8 and 32.0 percent respectively for Class I, II and III cities. The data lends no support to the possibility that school personnel in smaller school districts are a greater source of vocational course selection influence than those in the largest school districts. Once again, the anaylsis of the data by city classification fails to reveal significant, much less substantial differences.

ANALYSIS BY INDIVIDUAL CITY

Are there significant differences among the twenty-two major cities in terms of how their vocational graduates answered the question of who influenced vocational course selection? Table 5.2 provides the data. There are very clearly individual city differences. The percentages acknowledging the guidance counselors ranged from a low of 7.4% (Louisville) to a high of 31.3% (Newark). Moreover, the values are scattered throughout the range. Six cities had counselors acknowledged by less than ten percent of the graduates, twelve cities had counselors acknowledged by between ten and twenty percent of the graduates, four cities had counselors acknowledged by between twenty and thirty percent of their graduates and one city (Newark) had counselors acknowledged by more than thirty percent of their graduates.

The percentages acknowledging vocational teachers as having the most influence on vocational course choice were less heterogeneous, even though the range was from a low of 2% (Minneapolis) to a high of 35% (Atlanta). (The small number of cases for Minneapolis makes the data of questionable reliability.)

City differences are less readily apparent among the remaining sources of course selection influence. If we exclude Atlanta and Minneapolis for reasons discussed earlier, the percentages acknowledging parents cluster in a relatively narrow range. The same can be said for siblings, family friends and relatives, and peer group friends.

ANALYSIS BY TYPE OF PROGRAM

Do the graduates of the different types of vocational programs reflect differences as to the sources of influence on vocational course selection? Table 6.2 provides the comparative data.

The relative order of sources acknowledged to have influenced vocational course choice most is essentially the same for all program areas. With the exception of Gainful Home Economics, all programs show parents to be the most frequently acknowledged source of influence. However, there are some interesting differences that suggest school personnel are more active as a source of influencing course selection in some program areas than others. When one combines the school personnel percentages, the resultant percentage range from low to high is as follows: Health Occupations (29%), Business Education (30%), Trade and Industrial (31%), Distributive Education (37%), Technical Occupations (38%), Gainful Home Economics (43%), and Agriculture (52%). Gainful Home Economics and Agriculture present the most atypical pattern. In the former, the counselor is the predominant source of influence (22%), whereas in the latter the vocational teacher is the predominant source of influence (37%) on vocational course choice. The relatively small number of cases in these two program areas may account for the atypical pattern. However, we believe these programs are subject to more active recruitment efforts on the part of school personnel, particularly efforts directed at so-called disadvantaged students whom school personnel believe would have difficulties in more technically-oriented curricula.

When the percentages for parents, siblings and close family associates are combined for a family influence cluster, the resultant percentages range from low to high as follows: Gainful Home Economics (30%), Agriculture (32%), Distributive Education (33%), Technical Occupations (39%), Trade and Industrial (41%), Health Occupations (46%) and Business Education (48%). Comparing these percentages with those previously given for school personnel, we conclude that students in Gainful Home Economics and Agriculture are more likely to have been influenced by school personnel than family sources, whereas those in Health, Business Education and Trade and Industrial show greater influence by family sources.

ANALYSIS BY RACE

Do black and white graduates differ as to sources acknowledged to be most important influence on vocational course choice? Table 7.2-A provides the comparative data.

For the combined program data, 40% of the black graduates indicated school personnel were the most important influence on vocational course choice, whereas only 30% of the white graduates acknowledged school personnel. Conversely, 46% of the white graduates indicated the family cluster (parents, siblings, relatives and family friends) as influencing vocational course choice the most. Thus, blacks are more likely to be influenced by school personnel than family cluster sources, whereas whites are more likely to be influenced by family cluster sources. However, the differences are not substantial. Both black and white students are still predominantly influenced by parents, except in the Gainful Home Economics program where the counselor influence predominates.

The general pattern of data does support the interpretation that school personnel are responding more actively to perceived levels of capability among black students. For example, 28% of the blacks in the technical area acknowledged counselors in contrast with only 12% of the whites. A similar pattern shows up in the Distributive Education and Business Education program. Home Economics is again atypical. Counselor and teacher influence predominates. The reader may recall that this program also had the lowest percentage of graduates who reported getting the vocational course of their first choice. The combination suggests the possibility that school personnel may be influencing students into this program against student wishes. With some exceptions, Gainful Home Economics occupations tend to be low prestige, low earnings service occupations.

ANALYSIS BY SEX

Do male and female graduates differ as to sources reported as the most important influence on vocational course choice? Table 7.2-B presents the comparative data.

The combined program data shows no substantial male-female difference, with one exception. A substantially greater percentage of females and males reported parents as the most important influence (30% vs. 22%).

The sex differences shown within Home Economics, Health and Technical programs are best ignored because of the small number of one or the other sex in these programs. There are no impressive sex differences in the Trade and Industrial, Distributive Education and Business Education programs in terms of sources of most important influence on vocational course choice.

ANALYSIS BY TYPE OF GRADUATE

How do academic, general and vocational graduates compare in terms of the sources acknowledged to have had the most influence on selection of the high school major? Table 8.2 presents the data.

When one combines the percentages for school personnel, the results are as follows: Academics (25%), Generals (32%) and Vocationals (34%). The percentage that acknowledged parents as the most important influence was 52, 40, and 27 percent respectively for academic, general and vocational students.

A point must be made before the data is discussed. The classification, general program graduate, includes all non-vocational graduates in those cities that could or would not differentiate academic (college preparatory) from general (non-college preparatory) track students. Some cities have abandoned the identification of graduates as academic or general in response to (1) persons that reason the practice was discriminatory for those who were employment bound and (2) criticism for the large number of graduates who were neither college preparatory nor vocational. Apparently, one way the school administrators solve their problems is to take the labels off the bottles.

The data confirms earlier findings (1) that those in the academic (college preparatory) programs acknowledge parental influence upon high school major selection to a much greater extent than do those in general (non-college preparatory) programs, and the latter, in turn, acknowledge parents as the most important source of influence to a greater degree than do the vocationals. Undoubtedly, the data reflect parental value systems.

ANALYSIS BY RELATEDNESS OF EMPLOYMENT

How do graduates employed in and out of their occupational field of study differ in terms of the sources acknowledged to be the most important source of influence in vocational course selection? Is there any evidence to suggest that those influenced most by the guidance counselors are more likely to end up in the field for which trained? Table 9.2 presents the data.

First, the counselor. For both males and females and for blacks and whites, a slightly higher percentage of graduates not employed in their field of study report the counselors as the most important source of influence on vocational course choice. The differences are small but consistent, e.g. 10 vs. 14% for males, 12 vs. 14% for females, 8 vs. 13% for white males, 12 vs. 18% for black males and so on. Thus, there is a small inverse relationship between counselor influence on course selection and eventual employment in the field. Possibly, this reflects counselor pressure for students to take courses that are not the first choice of the students so influenced. On the other hand, one could just as plausibly interpret that those in need of counselor help are those who have no strong career plans of their own.

Second, the vocational teacher. A higher percentage of those employed in their field of study reported the vocational teacher as the most important influence on course choice than did those employed out of their field of study (17 vs. 13% for white males, 12 vs. 9% for white females, 28 vs. 18% for black males, and 14 vs. 12% for black females). Except for the black males, the differences are not substantial, but they are consistent.

Third, the parents. A slightly greater percentage of those in than out of their field of study reported their parents influenced the course choice the most. The differences are small, but consistent: (25 vs. 23% for white males in and out of field of study, 36 vs. 32% for white females, 21 vs. 18% for black males and 33 vs. 24% for black females).

Lastly, there are the peer group friends of the graduate. A slightly greater percentage of those out than in their field of study reported their friends influenced their vocational course choice the most. Small but consistent differences are revealed (17 vs. 13% for white males out and in their field of study, 20 vs. 14% for white females, 16 vs. 11% for black males, and

15 vs. 9% for black females). Those influenced by their age group friends in vocational course choice are less likely to later enter the field for which trained.

3. INFORMATION ABOUT OCCUPATION AT THE TIME OF COURSE SELECTION

INTRODUCTION TO THE TOPIC

QUESTION RATIONALE

The survey instrument asked, "How well informed were you about the occupation when you selected your vocational course?" The weakness of the question was that the graduates were being asked to recall a state of affairs that was at least two years old. There is the possibility that what was recalled did not necessarily coincide with what was the case. On the other hand, it is a question that is difficult to answer with any validity before some experience with either the training for the occupation or actual occupational experience. It was decided that even an imprecise reading on the problem area was better than none.

The rationale is obvious. Students who are poorly informed about the occupational field they are about to study are more likely to be disappointed as their experiences with the occupation unfold during the vocational course. Being poorly informed is usually the equivalent of having unrealistic expectations in career decisions. Such students are more likely to drop out of the vocational course, or if they continue, do less well academically than students who have a good grasp of what they are getting into, or if they complete the program, more likely to decide against working in their field of study. The implied hypotheses are highly plausible, but remain to be verified. All such potential outcomes run counter to an effective vocational education. The manpower conversion model (Chapter I) stresses the importance of (1) reducing vocational program dropouts to the minimum, (2) increasing the percentage of graduates who leave with acceptable standards of occupational knowledges and skills and (3) increasing the percentage of employment-bound vocationals who really want employment in their field of study. All such objectives are jeopardized by enrolling in vocational programs students who have a poor understanding of the salient features of the occupations they are about to study. It made sense, then, to get some type of opinion from the graduates about their state of occupational information at the time of vocational course selection.

PRIOR STUDY FINDINGS

A follow-up survey of 14,146 Pennsylvania Class of '68 vocational program graduates asked the latter how well informed they were at the time of vocational course choice about such factors as the nature of the work, conditions of work, rate of pay, job opportunities and long-term future. The individual elements were intended as a sample of a population of items reflecting adequate knowledge about the occupation chosen for study. The response alternatives were gross descriptors, i.e. good, fair and poor. The percentage of graduates that answered good to each item was as follows: •conditions of work (46%) •rate of pay (38%) •nature of work (57%) •job opportunity (52%) and •long-term future (49%). We concluded that improvement in career information and orientation prior vocational course selection was very much needed, assuming that the general findings could be further verified.

A similar question was put to the 16,660 Class of 1968 Project Metro vocational graduates from twelve of the cities included in the Class of 1970 follow-up survey. The results were similar to the Pennsylvania Class of '68 finding. The percentage of graduates that answered good to the items was as follows: •conditions of work (42%) •rate of pay (39%) •nature of work (54%) •job opportunity (48%) and •long-term future (45%). The percentages are only slightly less than the equivalent values obtained in the Class of '68 Pennsylvania follow-up study. The conclusion drawn was the same: prevocational career orientation needs to be improved in the major cities surveyed, and probably all others as well.

A Pennsylvania Class of '70 survey (5) raised the same basic question: How well informed were you about the occupation when you made your course choice? About 16% responded excellent, 48% reported good, 29% claimed only fair, and 7% indicated poor. Again, we see there is room for improvement if we accept the retrospective view of graduates as valid.

PRESENT SURVEY FINDINGS

The survey instrument asked, "When you made your (vocational) course choice, how well informed were you about the occupation?" Consider things like pay, type of work, job opportunities, conditions of work, opportunity for advancement, etc. A response of excellent, good, fair or poor was available to the respondent.

ANALYSIS OF ALL GRADUATES COMBINED

How well informed were you about the occupation when you made your course choice? Table 4.3 shows how all graduates combined responded to the question. The response percentages were as follows: • excellent (17%) • good (48%) • fair (28%) • poor (8%). Thus, about 65% of the graduates felt they had excellent or good information about the occupation to be studied. About 35% felt their information was only fair or poor. The magnitude of the latter percentage again indicates a need to improve prevocational occupational orientation.

We acknowledge that the question is only a superficial brush against an important area for evaluation. Clearly, more intensive probing is needed before we can make serious (and costly) action recommendations.

ANALYSIS BY CITY CLASSIFICATION

How does the size (population) of the city (and indirectly the size of the school district) relate to how graduates assessed their occupational information at the time of course choice? Table 4.3 provides the data. The response percentages differ but little between the three classes of cities. For example, the percentages responding excellent were 19, 16 and 16 percent respectively for Class I, II, and III cities. At the other extreme, the percentages responding poor were 8, 7, and 8 percent respectively for Class I, II and III cities. We conclude that the size of the school district as indirectly given by city population is unrelated to how well informed students are about the occupation at the time of vocational course selection.

ANALYSIS BY INDIVIDUAL CITIES

Are there significant individual differences among the twenty-two major cities in terms of how their graduates answered the question? Table 5.3 provides the data. The percentages for excellent ranged from a low of 12% (San Francisco) to a high of 26% (Houston). At the other extreme, the percentages for poor ranged from a low of 4% (New Orleans) to a high of 11% (Cleveland). More impressive than the individual differences that are apparent, with a few cities standing apart from the rest, is the basic similarity of the pattern of percentages from all cities. We are inclined to conclude that the individual city differences are more apparent than real.

ANALYSIS BY TYPE OF PROGRAM

Are there any substantial differences between the basic types of vocational programs in terms of how well informed students were about the occupations selected for study when they made their vocational course choice? Table 6.3 provides the data. When one combines the percentages for excellent and good for each program field, the percentages range from a low of 58.2% (Technical) to a high of 69% (Business Education). We conclude the Business Education majors feel that they are better informed about the occupations they are about to study than are those in the other program fields. In general, the program field differences are not impressive. There is no strong evidence to support the idea that those responsible for prevocational occupational orientation in the different vocational fields are doing a differentially better job of informing their students. We can't select one program field as exemplary for further study. The somewhat better response from Business Education graduates is probably because more is generally known about the business education occupations, e.g. typist, stenographer, secretary, etc. by the prevocational high school students than is the case for the occupations in other program fields.

ANALYSIS BY RACE

How do the white and black graduates compare in terms of how well informed they reported themselves to be about the occupation when they made their vocational choice? Table 7.3 provides the data. The percentages of white and black responses for the four answer categories are as follows: •excellent (16.6 vs. 17.4%) •good (47.5 vs. 48.8%) •fair (27.9 vs. 27.1%) •poor (8.0 vs. 6.7%). We conclude that for the combined graduates race is unrelated to how the graduates rated how well informed they were about the occupation to be studied.

A closer look at the differences within program fields shows that the black graduates from the distributive education and gainful home economics programs gave themselves better ratings than did their white counterparts. It is interesting to note that the black graduates from these two program fields also acknowledged the influence of school counselors more than did their white counterparts. With these possible exceptions, we adhere to the conclusion that race is not a factor relating to how well informed students are about their chosen occupations.

ANALYSIS BY SEX

How do the male and female graduates compare in terms of how well informed they considered themselves to be about the occupation studied when they made their vocational choice? Table 7.3 provides the data. The percentages of male and female responses for the four answer categories are as follows: •excellent (16.5 vs. 16.9%) •good (43.8 vs. 50.7%) •fair (29.5 vs. 26.7%) and •poor (10.3 vs. 5.7%). Thus, about 60.3% of the males and 67.6% of the females felt that their prevocational occupational information was either excellent or good. This slight difference in favor of the female graduates may be attributable mainly to the relatively large number of female graduates from Business Education programs who reported themselves to be better informed than their male counterparts. With the exception of the Business Education field, we conclude that there are no substantial sex differences in terms of prevocational course occupational information.

ANALYSIS BY RELATEDNESS OF EMPLOYMENT

How do the graduates employed in and out of their occupational field of study compare in terms of how well informed they reported themselves to be about the occupation when they made their vocational choice? This is a critical analysis because it may establish the relationship between adequacy of occupational information prior to the selection of the vocational course and the likelihood of eventual employment in the field of study. Table 9.3 provides the data. The percentages of males and females employed in and out of their field of study who answered that their pre-course choice information was excellent was 22.1 vs. 13.8% for the males and 22.6 vs. 13.9% for the females. Similarly, a greater percentage of the ins than the outs reported they had good information about the occupation at the time they chose their vocational course. The same generalization can be made for the comparative data for white males and females and for black males and females. Without exception, a greater percentage of those employed in the occupational field studied said their occupational information was excellent or good than was the case for those employed out of their field of study. *We conclude that there is a significant relationship between how well informed students are about the occupation at the time of vocational course choice and the likelihood that they will be employed later in their field of study.*

4. PLANS TO WORK IN FIELD OF STUDY AT TIME OF COURSE CHOICE

INTRODUCTION TO THE TOPIC

QUESTION RATIONALE

In 1964, the writer conducted a national sample follow-up survey of Class of '53, '58, and '62 trade and industrial program graduates (1, 2). A very substantial percentage of the graduates were found employed in fields unrelated to their vocational courses of study. Moreover, the data hinted indirectly that many employment-bound vocational graduates may *not* want employment in their vocational field of study upon completing the program. A Class of '68 follow-up survey of vocational program graduates (9) from twelve of the present twenty-two Project Metro cities confirmed the existence of a problem. About 32 percent of the graduates from all vocational programs combined reported that, at the time of graduation, they did not want employment in the field studied. Furthermore, when asked when the decision was made, fully 47 percent of those who decided against employment in their field of study reported that they never really planned to do so. Thus, while the great majority decided against employment in their field of study *after* selecting their vocational course, presumably as a result of learning about their incompatibility with the occupation being studied or learning more about other occupations, a substantial minority never had serious intentions of seeking a career in their field of study.

Clearly, if this phenomenon is a persistent characteristic of vocational education, then there is a serious problem. If a large percentage of the new enrollees have no plans to pursue a career in their vocational field of study, a question can be raised about public vocational education as a major resource for the development of skilled manpower.

With vocational education costlier than general education, skeptics could easily raise an eyebrow if the data revealed that thousands of students who completed a vocational program wanted no part of employment in their chosen field of study. Such skepticism would be compounded if the data further revealed that a substantial percentage of such students never really planned a career in their vocational field of study.

The Class of 1968 follow-up survey put the question directly to the graduates: At the time of your vocational course choice, did you plan to work in the occupational field selected? About 43% reported "Yes, definitely," 40% reported "Yes, but not definite," 11% reported "No, but not definite," and the balance, 6%, reported "No, definitely not." Thus, only 16% of the graduates responded negatively, although 40% were an indefinite affirmative.

It seemed appropriate to introduce the same question into the Class of '70 follow-up survey that included twelve of the thirteen cities included in the Class of '68 survey.

SURVEY FINDINGS

ANALYSIS FOR ALL GRADUATES COMBINED

Table 4.4 indicates how all graduates combined responded to the question concerning their plans to pursue a career in the vocational field selected for study. About 39% reported "Yes, definitely," they had planned to work in the occupational field represented by their vocational course; 46% reported "Yes, but not definite;" 10% reported "No, but not definite;" and 4% reported "No, definitely not." Thus, 85% reported affirmatively in contrast to 83% for the Class of '68. The improvement is too slight to make much about.

Is there a serious problem of students not planning a career in their vocational field at the time the latter is selected? No and possibly yes. Only 4% reported they definitely did not plan a career in the vocational field studied. This hardly constitutes a problem, and those who have claimed that a substantial percentage of vocational students are pursuing a hobby can find no support in these findings. On the other hand, almost 57% of the students reported making their decision on a specific two or three year vocational curriculum without definite plans for a career in the occupational field about to be studied. Clearly, the majority has no strong commitment to a career choice at the time a vocational curriculum is selected. This may be a serious problem if the uncertainty is a reflection of inadequate career orientation and/or exploratory experiences to help resolve career decisions. It is not a criticism that young people change their career decisions. It is distressing that so many are uncertain, indefinite when making a decision that is presumed to be a career choice by the vocational educators. Let's look at the problem from some other aspects before drawing our conclusions.

ANALYSIS BY CITY CLASSIFICATION

Table 4.4 fails to reveal any substantial differences between the three classes of cities in terms of the plans of vocational students to make a career in the vocational field of study. There is a slight trend in the percentage that reported "Yes, definitely" they planned to work in the occupational field of study at the time the vocational course was studied, and the trend favors the larger cities. The percentage ranges from 35.6% for the Class III (smaller) cities thru 39.6% for the Class II (medium) cities to 41.3% for the Class I (largest) cities. Even so, the overall pattern of the percentages is one of similarity, not differences. The percentage of graduates who reported that they definitely did not plan to work in the occupation they were about to study is 4.1, 4.0 and 4.1% respectively for Class I, II and III cities. Except for the trend mentioned earlier, most differences are in the magnitude of two percent or less.

Whatever the underlying causes are for the large percentage of graduates who retrospectively reported that they lacked definite career plans at the time of vocational course choice, such causes are not related to school district size. As we shall see, the uncertainty problem is no greater in Chicago (Class I) as it is in Newark (Class III). The data lends no support to those who maintain smaller means better.

ANALYSIS BY INDIVIDUAL CITY

Table 5.4 shows how the graduates from the twenty-two Project Metro cities responded to the question, "Did you plan to work in that occupational field when you selected your high school vocational course." The percentage that answered "Yes, definitely" ranged from a low of 25% (Omaha) to a high of 46.7% (New Orleans) when one excludes Essex County because of the special status situation described earlier. The mean and median percentage for those who answered, "Yes, definitely" was 39.1 and 37.7 percent respectively.

Once again, the dominant overall pattern is the *similarity* of the data for the twenty-two cities, not the differences. The underlying causes of career uncertainty at the time of vocational course choice seem to be equally operative in most of the cities. Even so, one must not neglect the differences. New York, Philadelphia, Baltimore, New Orleans, Washington D.C., Norfolk -- the graduates from these cities reported a substantially greater percentage of "Yes, definitely" than did those from the other cities. We don't know why. Possibly those who enter vocational programs in these cities have had greater career orientation and/or exploratory occupational experiences. Some of the later analyses may provide some plausible hypotheses to account for the city differences. Also, it must be pointed out that when the *two* response percentages are totaled for each city, the city differences are diminished. For example, San Francisco comes out a strong 88% affirmative even though it reflected a low percentage (34.4%) of "Yes, definitely."

ANALYSIS BY TYPE OF PROGRAM

Table 6.4 shows how the graduates from the seven basic types of vocational program fields answered the question. There are substantial program differences. The percentages of those who *definitely* planned to work in the occupational field studied ranged from a *low* of 26.7% for *distributive education* graduates to a *high* of 63.5% for *health occupation* program graduates. The pattern for gainful home economics graduates is similar to that for distributive education. For the latter, about 23% of the graduates reported that they did not plan to work in the occupational field studied (Wholesale and retail marketing) whereas fully 24% of the gainful home economics graduates reported similar negative plans. At the other extreme, only 7.4% and 7.3% respectively of the technical and health program graduates reported that they did not plan to work in the occupational field they were about to study at the time of vocational course selection. It is relevant to recall that (i) a much higher percentage of the technical and health program graduates reported they took the vocational course of their first choice (respectively 86.3% and 83.2%) than was the case for distributive education and gainful home economics graduates (respectively 69.3% and 66.1%). Apparently, those who do not get the vocational course of their first choice are less likely to plan a career in the occupational field that was not their first choice. That's a very reasonable and not unexpected relationship. We should expect that those graduates who reported there was no choice available to them in the vocational course that they ended up in would not plan a career in the field into which they were forced by circumstances unknown to us. That is exactly the case. Of the 1200 graduates who reported that they had no choice in the selection of their vocational course, only 24 percent reported that they planned to work in the occupational field thrust upon them. Counselors, please take note.

ANALYSIS BY RACE WITHIN PROGRAM

Table 7.4-A shows how white and black graduates in each program field and in all program fields combined responded to the question. The differences between white and black equivalent percentages are inconsequential. Thus, 39.4% of the white graduates versus 41.6% of the black graduates reported definite plans for a career in the field represented by their vocational course of study. At the other extreme, 3.7 and 4.4 percent respectively of the white and black graduates reported that they definitely did not plan to work in the occupational field studied. The respective percentages for the other two answer categories were also similar, e.g. "Yes, but not definite:" 46.6% (white) vs. 45.1% (black) and "No, but not definite:" 10.3% (white) vs. 9.0% (black). In general, then, race is not a differentiating factor in terms of the percentages of graduates who plan to work or not work in the vocational field of study. The career plans of black and white graduates relative to their vocational field of study are quite similar.

ANALYSIS BY SEX WITHIN PROGRAM

Table 7.4-B shows how male and female graduates both within each program field and across all program fields responded to the question, Did you plan to work in the occupational field when you selected your vocational course? Once again, the dominate pattern is one of similarities rather than differences. The differences are nominal, not substantial. About 37% of the males reported "Yes, definitely" versus 40.7% of the females. At the other extreme, 4.5% of the males reported "No, definitely" versus 3.7% of the females.

Within some of the program fields, notably business education and health occupations, a substantially greater percentage of the females reported that they definitely planned to work in the occupational field of study. Both fields are predominantly characterized by female enrollments.

In general, then, sex is not a differentiating factor for this dependent variable. Boys and girls are essentially similar when it comes to plans for working in the vocational field of study at the time of vocational course selection.

ANALYSIS BY RELATEDNESS OF EMPLOYMENT

Table 9.4 indicates how the graduates presently employed in and out of the field for which trained answered the question. This is a critical analysis because it shows the relationship between plans at the time of vocational course selection and employment in the field for which trained. The data is organized in terms of males and females for white, black and all graduates combined. The In's are the graduates who reported that they were employed in the same occupation studied or a highly related occupation. The Out's are those who reported employment in a totally different occupation or one only slightly related to the occupation studied.

The findings show a definite relationship between plans to work in the occupation to be studied at the time of course selection and later employment in the field for which trained. For the males, about 57% employed in the field for which trained reported that they had definitely planned to work in the occupation studied whereas only 29% of those out of their field of study reported such plans. Combining the two affirmative percentages gave 93.5% for those employed in their field of study versus 78.7% for those employed out of the field of study. For females, the data has a similar pattern. About 96% of the females currently employed in their field of study claimed that they had planned to do so at the time of vocational course selection. Of those employed out of their field of study, 73% reported similar plans. As we shall see later, the Class of '70 had a difficult time finding employment in any field, and even more so in their field of study. This accounts for the apparent discrepancy between the plans of those not employed in their field and the relatedness of current employment to training.

The table provides comparative data for white males and females, black males and females, white and black males and white and black females. The results can be summarized by saying that there is no substantial difference between the sexes of either race of graduates or between the races within a given sex catogory when one combines the affirmative (Yes, definately and Yes, but not definite) and negative (No, but not definite and No, definitely) percentages.

Only 18 percent of those who did not plan to work in the occupational field studied did take employment in their field of study. While the percentage confirms the relationship between plans and outcomes, it also reminds us that the relationship is far from perfect.

5. PRESENT STATUS OF CLASS OF '70 VOCATIONAL PROGRAM GRADUATES

INTRODUCTION TO THE TOPIC

The survey instrument asked, What is your present status? The available response categories were •employed full-time •employed part-time •unemployed, looking for work •unemployed, not looking for work •college, full-time •college, part-time •school (not college), full-time •school (not college), part-time •military service and •status other than above. The items were so grouped in two columns that only one answer would be appropriate in either or both of the two groups. Please refer to the questionnaire in Chapter 2.

QUESTION RATIONALE

The rationale for the item is almost self-evident. We need to know the employment and higher education status of vocational graduates after they leave the high schools. What percentage of the graduates enter the labor market? The answer will tell us to what extent vocational education constitutes preparation for post-high school employment. What percentage of the graduates are unemployed? The answer will tell us how effective major city school systems are in the job placement of their graduates. What percentage of the graduates continue to college or other type of post-high school education? The answer will reveal the extent to which vocational education is being used as an alternative to academic education for further education after high school. The item touches upon the hard data necessary to evaluate the effectiveness of vocational education.

PRIOR STUDY FINDINGS

The Process and Product study (1,2) done by us in 1964 surveyed a national sample of trade and industrial program graduates from one hundred high schools. The survey included the Classes of 1953 (a year of boom economy), 1958 (a recession economy year) and 1962 (an economy at neither extreme). The major finding of interest to the present study was the relationship between the state of the economy and what happens to the vocational graduates after high school. In a recession economy, the percentage of graduates found unemployed is much greater, the percentage of those who find a job in their field of study is much less, the weeks and months taken to find a full-time job is much greater, and so on. In short, the very measures that we use to evaluate the effectiveness of vocational education are severely influenced by the level of the general economy which, we can agree, is not controllable by the major school systems.

What this means is that evaluation data of this type makes sense only when collected annually to establish the trend of the data. When the data takes a plunge in the undesired direction during a recession year, one can't fault vocational education, or the major school districts anymore than one can fault the graduates themselves. They are the victims, not the causes of the problem. The point must be emphasized because the Class of '70 graduates entered the labor market in a recession economy.

The Project Metro Class of '68 follow-up survey (9) involved twelve of the twenty-two major cities involved in the Class of '70 survey. For that reason, a look at the data may be interesting. Within five months after graduation, 61% of the graduates were employed full-time, 24% were in college full-time, 6% attended a non-college school full-time, 2% were in the military service, 2% were pursuing a home career and the balance were either unemployed or in a status that precluded employment. One year later, after the recession was already under way, only 5.6% reported that they were unemployed and looking for a job. Thus, about 56% of the '68 vocational program graduates were employment-bound upon high school graduation and about 30% were headed for further full-time education. Let's see what occurs in a recession year.

PRESENT SURVEY FINDINGS

ANALYSIS FOR ALL GRADUATES COMBINED

What is your present status? The question was asked of the Class of '70

June graduates in the Fall of '70. Table 4.5 shows how the graduates responded. About 43% reported they were employed full-time. However, only 38% were employed full-time and not attending either college or a non-college school. This represents a sharp drop from the 61% of '68 graduates found employed full-time five months after graduation. The recession economy was hard on the Class of '70 graduates.

About 13% reported part-time employment. Only 3.7 percent were employed part-time and not attending college or school. Thus, most of those employed part-time were in that status because they were supporting their way through school.

About 17% reported they were unemployed and looking for work. The figure includes those who were attending college or school and looking for supplementary work. About 12% were unemployed, looking for work and not attending college or school. The percentage does not reveal the true magnitude of the unemployment problem because the calculation is based upon the total cohort of respondents, whether available for work or not. The percentage of vocational graduates who were unemployed, looking for work and not attending college or school, when based upon the number available for work, is about 21 percent. One out of every five employment-bound vocational graduates was unemployed at the time the survey was conducted. Let no one equate vocational education with assurance of a job in a recession economy.

About 20 percent were unemployed, but not looking for work. About 18 of this 20 percent were attending college or school either full-time or part-time.

About 5% were reported in the military service by their parents. Less than 2% could not be classified. These would include graduates who were institutionalized or deceased.

Some additional observations are in order. The percent reporting full-time college attendance was 25.8%, compared with 24.3% for the Class of '68. One can't conclude that the recession had no effect on the college-bound. On the contrary, we would expect that the percentage of college-bound would show an increase over a two year period because the general trend is one of an increasing percentage of vocational graduates attending college. (A survey of Class of '68 vocational graduates revealed that only 16% had attended college within a two year period of graduation.) It is probable that the recession served to hold down college attendance among the vocational graduates. The point is not proven. One of the difficulties of drawing trend type conclusions is the failure to apply the same follow-up instrument to the same population of graduates for a succession of years until the direction of the trend has been established.

ANALYSIS BY CITY CLASSIFICATION

How does the size of the city relate to the employment and educational outcomes experienced by the vocational program graduates? Table 4.5 provides the data. The percentages of graduates employed full-time and not attending college or school are 37.5, 39.3 and 37.3 for Class I, II and III cities respectively. City size is unrelated to this category of response. The percentage of graduates unemployed, looking for work and not attending college or school is 10.4, 13.3 and 10.8 for Class I, II and III cities. We prefer the conclusion that city size is unrelated to this category of outcome. (Based upon graduates available for work, the unemployment rate for Class I, II and III cities is 19.6, 22.8 and 20.2 percent respectively.) The percentages of graduates attending college full-time is 30.6, 20.9 and 29.1 in Class I, II and III cities respectively. Here there is a decided Class II city difference. We prefer to interpret the lower percentage of college attenders in the Class II cities as an aberration attributable to less opportunity to attend local low cost colleges in the Class II cities herein surveyed rather than make a generalization to all Class II cities, i.e. those with a population ranging from 500,000 to 1,000,000 persons.

In general, then, we conclude that city size, and therefore school district size is essentially unrelated to the immediate employment and/or educational outcomes experienced by vocational program graduates.

ANALYSIS BY INDIVIDUAL CITY

To what extent are there individual city differences in terms of the post-high school status of their vocational graduates. Table 5.5 tells the long and involved story. Let's examine the table selectively.

- Employed full-time, no college or school. The percentages ranged from a low of 15% (Seattle) to a high of 52% (Boston) with a median of 37.8 percent and a combined percentage of 38.3.
- Unemployed, looking, no college or school. The percentages ranged from a low of 4.5% (Omaha) to a high of 19.1% (Birmingham) with a median of 11.2 percent and a combined percentage of 11.8.
- College, full-time attendance. The percentages ranged from 10.6% (Boston) to 53% (Seattle) with a median of 23.4 percent and a combined 26 percent.
- School, full-time attendance. The percentages ranged from 1.4% (Seattle) to 11.2% (Pittsburgh) with a median 3.5 percent.

Table 5.5 fails to make clear the magnitude of the unemployment problem, because the percentages are based upon the total graduate returns rather than those available for employment. Table 3.1 (next page) provides a more complete picture of the basic post-high school outcomes experienced by each city's graduates. The last column of the table shows unemployment percentages based upon graduates who were available for employment. They range from a low of 9% (Boston) to a high of 43% (Birmingham) with an overall percentage of 22 for all cities combined. These percentages show how severely employment of vocational graduates is affected by a recession economy. The tragic aspect of the data is that these graduates will usually take the first job available and it will most likely not be in the field for which trained.

It is very likely that these percentages would be between 5 and 10 percent higher had all graduates returned questionnaires. The high unemployment percentages demonstrate dramatically the effect that a recession economy has upon job placement for vocational graduates. Worse than the temporary period of unemployment is the probability that most of the unemployed graduates will take the first available job, and that job will probably not be in the

TABLE 3.1 SUMMARY OF STATUS OF CLASS OF 1970 VOCATIONAL COURSE GRADUATES

MAJOR CITY SCHOOL DISTRICTS	ESTIMATED VOCATIONAL OUTPUT [1]	GRADUATES SURVEYED CLASS '70	SURVEY RETURNS		HIGHER EDUCATION		EMPLOYED OUT OF FIELD		EMPLOYED IN FIELD				UNEMPLOYED	
			NO.	%	NO.	%	NO.	%	NO.	% [2]	% [3]	% [4]	NO.	%
CHICAGO	*	2571	962	37.4	420	43.6	198	54.7	151	41.7	30.9	15.7	97	19.8
HOUSTON	2899	1891	772	40.8	360	46.6	136	52.5	108	41.7	30.9	14.0	69	19.8
NEW YORK	*	3109	1604	51.6	821	51.2	248	52.8	202	43.0	31.2	26.8	129	19.9
PHILADELPHIA	5589	3408	1375	40.3	357	26.0	333	50.2	307	46.3	33.7	22.3	189	20.7
CLASS 1 CITIES	--	14088	4713	42.9	1958	41.5	915	52.2	768	43.8	32.0	16.3	484	20.2
ATLANTA	*	435	131	30.1	53	40.4	24	53.3	16	35.6	23.5	12.2	14	20.6
BALTIMORE	*	4191	1953	46.6	475	24.3	445	51.0	396	45.4	31.4	20.3	325	25.8
BOSTON	2251	2325	776	33.4	199	25.6	221	55.4	168	42.1	36.8	21.6	42	9.2
CLEVELAND	1431	1333	555	41.6	176	31.7	131	54.6	103	42.9	33.3	18.6	56	18.1
NEW ORLEANS	*	1011	483	47.8	183	37.9	75	44.9	84	50.3	33.3	17.4	62	24.6
PITTSBURGH	1851	1655	1135	68.6	330	29.1	276	57.6	191	39.9	26.9	16.8	158	22.2
SAN FRANCISCO	1923	1264	511	40.4	301	58.9	58	58.0	37	37.0	21.3	7.2	54	31.0
SEATTLE	1793	554	280	50.5	175	62.5	25	59.5	16	38.1	18.8	5.7	30	35.3
ST. LOUIS	2306	1847	835	45.2	338	40.5	131	52.0	114	45.2	28.6	13.6	114	28.6
WASHINGTON, D.C.	583	1199	528	44.0	182	34.5	111	54.4	87	42.6	26.8	16.5	97	29.8
CLASS 2 CITIES	--	15814	7187	45.4	2412	33.6	1497	53.5	1212	43.3	30.0	16.9	952	23.6
BIRMINGHAM	1653	450	174	38.7	83	47.7	22	59.4	11	29.7	14.9	6.3	33	44.6
LOUISVILLE	*	1115	466	41.8	119	25.5	109	52.6	96	46.4	31.4	20.6	76	24.8
MINNEAPOLIS	3351	245	165	67.3	45	27.3	31	36.0	53	61.6	52.0	32.1	10	9.8
NEWARK	1548	961	356	37.0	124	34.8	87	55.1	63	39.9	30.3	17.7	44	21.2
ESSEX COUNTY	--	439	244	55.6	60	24.6	54	50.0	48	44.4	31.0	19.7	35	22.6
NORFOLK	976	432	253	58.6	78	30.8	43	45.3	50	52.6	36.2	19.8	29	21.0
OMAHA	1588	1186	510	43.0	207	40.6	113	57.6	88	38.1	33.0	17.2	23	8.6
PORTLAND	2828	1686	967	57.4	509	52.6	148	62.2	78	32.8	21.4	8.1	90	24.6
ROCHESTER	*	1403	714	50.9	301	42.2	151	56.6	101	37.8	28.0	14.1	74	20.5
CLASS 3 CITIES	--	7917	3849	48.6	1526	39.6	778	54.5	583	41.2	29.8	15.3	414	21.0
ALL CITIES COMBINED	--	34710	15749	45.4	5896	37.4	3190	53.3	2568	42.9	30.5	16.3	1850	22.0

1. U.S.O.E. 3139 report. (* Failed to submit report.)
2. Percentages based upon number of graduates employed full-time, no college or school.
3. Percentages based upon number of graduates available for work (those employed and unemployed, looking for work and no college or school).
4. Percentages based upon number of Class of '70 graduates survey returns.

field studied. In effect, the recession economy has served to abort the continued development of occupational entry-level skills of thousands of vocational program graduates. A previous study (2) has shown that once vocational graduates leave the field for which trained they rarely return.

What conclusions can we draw? The primary conclusion is that there are very substantial individual city differences in virtually all employment or education related outcomes. The percentages of graduates found unemployed or in full-time employment will depend upon the local economy level and the local availability of inexpensive higher education. The percentages of graduates found in college will depend upon the local opportunity low cost, accessible higher education. The strong individual city differences should serve as a caution to vocational education researchers. Surveys done in one, two or three cities provide no basis for generalizing to all major cities. A look at Seattle and San Francisco alone would give one the impression that vocational education was a college preparatory program. A look at Philadelphia and Pittsburgh, on the other hand, would interpret vocational education as a barrier to higher education. Neither view is correct. The data say more perhaps about the state of employment and higher education opportunities in the major city areas than they say anything about the vocational education process in these cities.

ANALYSIS BY TYPE PROGRAM

Do the graduates of the different types of vocational programs experience the same or different post-high school employment and education outcomes? For example, are some programs more likely to send their graduates to college than others? Do the graduates of some programs have less difficulty finding employment in a recession economy? Table 6.5.1 provides the data. We will comment on the major variables only.

1. Employed full-time, no college/school. The percentages ranged from a low of 24% (Gainful Home Economics) to a high of 45% (Business Education). There are clearly program differences on this variable.

2. Unemployed, looking, no college/school. The percentages ranged from a low of 5.9% (Technical occupations) to a high of 17.6% (Gainful Home Economics).

3. College, full-time. (Table 6.5.2) The percentages range from 23% (Business Education) to 46% (Health). It is interesting to note that the program that did best in employment did least well in further education. The suggestion is that lack of employment opportunity forces many to continue on to higher education. Gainful Home Economics data seems to verify this hypothesis. Only 1 out of 4 graduates were employed full-time when surveyed. The unemployment rate was the highest of all programs; 39% of graduates available for work. Yet, 31% of the Gainful Home Economics graduates attended college full-time.

The data in Tables 6.5.1 and 6.5.2 confirm that there are substantial differences in both short-term employment and educational outcomes between the basic types of vocational programs.

ANALYSIS BY RACE

How do white and black graduates differ in terms of their post-high school employment and educational status? Table 7.5.1-A presents the data for black and white graduates from all vocational programs combined and for black and white graduates within each program field. We will comment upon the data selectively.

1. The employment data. The percentage of whites and blacks employed full-time (not attending college or school) is respectively 48 and 31 percent. Clearly, the black vocational graduate has more difficulty in finding full-time employment. Direct evidence comes from the unemployment data. The percentage of whites and blacks reporting as unemployed, looking for work, not attending college or school is respectively 8.3 and 18.4 percent. The black unemployment rate is more than twice that of the white graduates. The equivalent percentages based not upon total graduates but upon total graduates available for work are respectively 14 and 33 percent. These percentages give a better picture of the unemploy-

ment problem suffered by the Class of 1970 vocational graduates, many of whom went into vocational education because they were told it would mean greater job security. Approximately the same percentage of white and black graduates were employed part-time (12.5 vs. 11.7%) and the same percentage were unemployed, not looking for work (5.6 and 5.1%). (Table 7.5.2-A).

2. The educational data. The percentage of whites and blacks attending college full-time is respectively 21 and 26 percent. The equivalent percentages for part-time college attendance are 3 and 6 percent respectively. Thus, in percentages, more black than white vocational program graduates are attending college. Given their employment opportunities with a high school diploma only, the decision for continued higher education may be the most practical decision for many black graduates. The percentages of blacks and whites attending non-college schools is identical (8 vs. 8%).

* * * * * * * * *

One hears a great deal about what vocational education is supposed to do for the disadvantaged who, by U. S. Office of Education definitions,[1] mainly turn out to be blacks. It is supposed to help them out of the ghetto by providing them with the occupational skills to raise their standard of living. The theory is sound. Who can argue against the idea that an occupational skill is better than no occupational skill. Reality is somewhat different. When 33 percent of the total employable black vocational graduates are unemployed six months after graduation, vocational education may not appear to be the right ladder to climb out of the hole. When the time comes, these graduates will take any reasonable job, including jobs that have nothing to do with their newly acquired occupational skills. In effect, then, they start out unskilled. Where then was the good of the vocational education? We will say more when all the data has been examined.

* * * * * * * *

The basic pattern indicated by the composite data is verified when we look at the individual program areas. In Trade and Industrial occupations, the unemployed, looking for work percentages are 11 and 24% respectively for white and blacks; for Technical occupations, the equivalent percentages are 9 and 17%; for Distributive Education, the equivalent percentages are 11 and 28%; for Business Education, the percentages are 11 and 27%, and so on for Health occupations and Gainful Home Economics occupations. These percentages are based upon total graduates, not those available for work.

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[1] See p. 3-47.

The greater college attendance by blacks is also confirmed in all but one program area, Health occupations.

ANALYSIS BY SEX

How do male and female graduates differ in terms of their post-high school employment and educational status? Table 7.5.1-B and 7.5.2-B provide the sex comparative data for (1) the total male and female graduates and (2) the male and female graduates within each program area. Let's consider the total comparative data first.

1. The employment data. The percentage of males and females employed full-time and not attending college or school was respectively 33 and 43%. The females had a clear ten percent advantage, attributable to the relatively high number of females in Business Education occupations who are predominantly employment-bound.

   The percentage of males and females reported unemployed, looking for work, and not in college or school is 9 and 14 percent respectively. Thus, while a greater percentage of the females are employed full-time, a greater percentage is also unemployed.

   Approximately the same percentage of males and females reported they were employed part-time.

2. The education picture. The percentage of males and females found attending college full-time was respectively 29 and 23 percent; attending college part-time, respectively 4.6 and 4.6 percent. Thus, about 6 percent more vocational male graduates attend college. There was no difference in the male and female percentages for non-college school attendance (7.4 vs. 7.2%).

The sex differences within the basic vocational program areas were similar with one exception: a significantly higher percentage of males were found employed full-time among the graduates of Technical occupations. In all other program areas, the females showed a higher percentage of full-time employment. The unemployment rate was higher for females in every program area, including those in which female occupations predominate. The differences in unemployment percentages ranged from a low of 4% (Business Education) to a high of 14% (Gainful Home Economics). Fully 29% of the total female graduates in Gainful Home Economics were unemployed and looking for work as much as six months after graduation. Economics has been called the dismal science. If the data coming out of the Gainful Home Economics programs does not take a turn for the better, it may be called the dismal program.

We conclude that there are definite sex differences in short-term employment and education outcomes, and that these differences are more pronounced in some program areas than others.

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[1] Disadvantaged Vocational Education Student: Any student who has an academic, socioeconomic or cultural disadvantage that requires either (1) some type of group or individual special purpose pupil service or (2) some type of modification of the regular vocational curriculum to increase the likelihood of successful completion of the vocational program.

6. STABILITY WITH FIRST EMPLOYER

INTRODUCTION TO THE TOPIC

The survey instrument asked, Is your present job your first job since completing high school? The respondent had a yes or no response available. The question was answerable by all graduates who indicated full-time or part-time employment on a preceding questionnaire item. However, the data herein presented is only for those who were employed full-time and were not attending a college or non-college school.

QUESTION RATIONALE

We felt it necessary to know whether the job being described in terms of relatedness to training, hourly earnings and other job related information was the first job after high school. School job placement services, to the extent that they are operative, are most likely to involve placement of the graduate in his first job, and less likely to involve the subsequent jobs. Hence, the information requested provided a basis for qualifying the data as first-job related or non-first job related.

A second aspect of data was to assess once more the degree of graduate stability with the first employer after high school. We know from other studies and our own earlier findings that the first year or two after high school is still an exploratory period for most graduates. We lacked, however, such data for a recession year economy. Findings that a high percentage of graduates were changing jobs (employers) even in a recession economy would be added evidence of the strength of the post-high school exploratory tendencies. This would have a bearing on the operation of school job placement services for graduates.

PRIOR STUDY FINDINGS

The Process and Product study (1) found that Class of '53, '58 and '62 vocational graduates of a trade and industrial curriculum had by 1964 a mean of 3.1, 2.5 and 2.0 full-time jobs with different employers. The data clearly indicated that vocational graduates do not do much moving from employer to employer, and that such moves are most likely to occur in the first two years after high school. About 56 percent of the Class of '62 graduates reported they had more than one full-time employer within two years after high school.

The Project Metro Class of '68 follow-up survey found that only 38 percent of the full-time employed vocational graduates were still with their first employer one year after graduation. The mean and median number of months that they stayed with their first post-high school employer was respectively 7.8 and 7 months. The reasons given for leaving the first employer included: better paying job (29%), attend school (19%), better type work (10%), better working conditions (7%), laid off (9%), military service (8), and reasons other than above (18%).

Substantially, similar findings were revealed by a Class of '68 follow-up survey of Pennsylvania graduates (3). About 51 percent were still with their first full-time employer after one year. The percentage is higher than for the Class of '68 Project Metro survey, indicating that vocational graduates in major cities are more likely to change employers during their first years after graduation than graduates in non-major city areas.

A similar survey of Class of '69 Pennsylvania vocational graduates (4) found 56 percent still with their first full-time employer only six months after leaving high school. This would indicate that most of the vocational graduates who leave their first employer during the first year after high school so do within the first months of their employment. It is also significant that the Class of '69 graduates in Pennsylvania were leaving employers during a period of declining economy, when jobs were more difficult to get.

PRESENT SURVEY FINDINGS

The survey questionnaire asked, "Is your present job your first job since completing high school?" (Answer yes or no.)

ANALYSIS OF ALL GRADUATES COMBINED

Is your present job your first job since completing high school? Table 4.6 provides the data. About 72 percent indicated their present job was their first job. Despite the recession period, 28 percent had within six months of graduation left their first employer. We can assume some of these were laid off as we found to be the case in the Class of '68 survey. However, if the findings of the latter survey, involving as it did twelve of the same major cities, are representative of what took place with the Class of '70 graduates, then most left voluntarily because they wanted better pay, better working conditions and different type of work. The present data confirms that a large percentage of vocational graduates leave their first employer after a few months, even during a recession economy when jobs are difficult to find for young persons.

ANALYSIS BY CITY CLASSIFICATION

How does city size (and indirectly school district size) in terms of population relate to the stability of employment with the first employer? Table 4.6 indicates that city size is unrelated to the percentage of graduates still with their first full-time employer. The percentages are 73, 70 and 74 percent respectively for Class I, II and III cities. The phenomenon of large percentages of vocational graduates leaving their first full-time employer relatively early is wide spread, unrelated to population of the major city in which the graduates are employed, and probably will be found operating in cities under 250,000 population and even rural areas, though perhaps not to the same degree found in the larger cities where job opportunities may be greater.

ANALYSIS BY INDIVIDUAL CITY

Are there significant individual differences among the twenty-two major cities in terms of percentage of graduates reporting present employment is still with their first employer six months after high school? Table 5.6 provides the data. The percentages reporting affirmative range from a low of 63% (Birmingham) to a high of 78% (Rochester). However, the values are predominantly in the upper sixties and lower seventies, indicating that the individual differences are small. More than anything, the data confirms that the phenomenon of a relatively short stay with the first employer for thirty to forty percent of the graduates operates in all major cities regardless of region, population, and occupational opportunities.

ANALYSIS BY TYPE OF PROGRAM

Are there substantial differences between the basic types of vocational programs in terms of percentage of graduates still with their first employer after six months? Table 6.6 indicates there are program differences. The graduates of Business Education and Health Occupation programs indicate greater first employer stability than do those from other program areas. The percentages are respectively 76 and 83 percent. Even such percentages, however, indicate that an impressive percentage of the graduates from these program areas also leave their first full-time employer.

ANALYSIS BY RACE

How do white and black graduates compare in terms of percentage reporting their present job (four to six months after graduation) is their first full-time job? Table 7.6 indicates that black graduates report consistently less first job stability than white graduates. For all graduates, 74 percent of the whites reported still being with their first employer versus 67 percent of the black graduates. The consistent differences within the basic program areas indicate blacks are more likely to change jobs within the first six months. The white and black percentages by program area are: Trade and Industrial (67 vs. 64%), Technical (71 vs. 48%), Distributive Education (75 vs. 40%), Business Education (79 vs. 70%), and Gainful Home Economics (69 vs. 57%). The exception is Health Occupations (72 vs. 87%) where a greater percentage of blacks than whites remained with their first employer from between three and six months after high school.

We can only offer some educated guesses about why the differences. One is that the jobs obtained by the blacks are less attractive in terms of conditions of work than is the case for the whites, and therefore they are more likely to look for a "better" job. Another is that they are more likely to experience involuntary termination forcing employment with other employers. But why conjecture? The study provides no data on any hypothesis to account for the race differences found.

ANALYSIS BY SEX

How do male and female graduates compare in terms of percentage reporting that their present job (four to six months after graduation) is their first full-time job? Table 7.6 indicates that 66 percent of the males answered affirmative versus 76 percent of the females. The data indicates a sex difference: females stay with their first full-time employer longer than do males. However, both sexes give evidence of large percentages of graduates leaving their first full-time employer within a relatively short period of several months.

The study has no data to support hypotheses of any kind to account for the sex difference reported.

ANALYSIS BY TYPE OF GRADUATE

Do academic, general and vocational program graduates differ in terms of the percentage reporting their present job (four to six months after high school) is their first full-time job after high school? Table 8.6 indicates affirmative percentages of 73, 68 and 72 percent respectively for academic, general and vocational program graduates. We conclude that there is no substantial difference between the three types of graduates on this issue. Regardless of type of high school program completed, almost a third of the full-time employed graduates are no longer, within four to six months after high school, with their first post-high school full-time employer.

ANALYSIS BY RELATEDNESS OF EMPLOYMENT

How do the graduates employed in and out of their occupational field of study compare in terms of percentage reporting their present job (three to six months after graduation) is their first full-time job? Table 9.6 presents the data. For males, the percentage still with their first employer at the time of the survey is 71 versus 63 percent for those in and out of the field of study. For females, the equivalent percentages are 79 versus 72 percent. Thus, those employed in their field of study are more likely to still be with their first full-time employer six months after graduation.

The table also gives confirming data for white and black graduates. The differences consistently show that those presently employed in their field of study are more likely to remain with their first employer during the first half year after high school, whether male or female, white or black.

The group with the greatest first employer adherence is the white females employed in the field for which trained; 81 percent were still with their first employer. The group with the least first employer adherence is the black males employed out of the field for which trained; only 58 percent were still with their first post-high school employer.

7. TIME REQUIRED TO OBTAIN FIRST FULL-TIME JOB

The survey instrument asked, "How many weeks after high school did it take to get your first job?" The respondent could mark the actual number of weeks that elapsed between graduation and the start of the first full-time job. Hindsight now raises the possibility that the question could have been variously interpreted, e.g. time lapse between graduation and when first full-time job was started or time lapse between when graduate first began to look for a job and when he started his first job. It may have been better to ask for specific dates rather than time estimates.

QUESTION RATIONALE

Theoretically, in the best of all possible placement services, all graduates would have their first full-time job lined up before leaving high school. Once they leave high school, and the summer doldrums take over in the high schools, they are not likely to receive the help of the schools' job placement service or, for that matter, the districts' job placement service. That means they must rely on other than school system resources for finding their first full-time job. That also means the school system has passed the point of maximum control in achieving one of the basic objectives derived from the manpower conversion equation, namely to improve the percentage of qualified and interested vocational graduates who are placed into their field.

The question, then, will tell us something about how effectively major city school systems are able to place their vocational graduates, with one very important reservation: The placement performance is not solely or even mainly a reflection of school system placement. With some exceptions, most major city school systems do not operate anything but a token job placement service.

The question of time to get the first job is particularly of interest for the Class of '70 which entered the labor market in a recession economy. How well do the vocational graduates fare when the general U. S. unemployment rate stands at about six percent and when some of the major cities have unemployment rates in excess of ten percent?

PRIOR STUDY FINDINGS

The Process and Product study (2) found that the Class of '53, '58 and '62 employment-bound vocational graduates required a mean of 1.3, 2.3 and 1.7 weeks respectively to find their first full-time job. The mean values correspond to the level of economy that confronted each graduating class, i.e. a boom economy (1953), a recession economy (1958) and a recovering economy (1962). Stated differently, 80, 64 and 69 percent respectively of the Class of '53, '58 and '62 employment-bound vocationals had a full-time job within one week after graduation. Mainly, the graduates had their jobs lined up before graduation. The data confirms the common-sense expectation that placement time is related to the economy level of the labor market into which the graduates enter.

The Project Metro Class of '68 survey found that about 52 percent of the employment-bound major city vocational graduates had a full-time job within one week after completion of high school. About 35 percent required more than one month to connect with their first full-time job. Few of the latter reported school system assistance in obtaining their first full-time job.

A Pennsylvania Class of '69 vocational graduate survey found that 36 percent of employed vocationals began their first job within a few days after graduation and that another 28 percent required up to two weeks to begin their first job. The Class of '69 entered into a recession economy, and this is reflected by the smaller percentage that began a job immediately after graduation compared with Class of '68 Pennsylvania data; 47 percent for the Class of '68 versus 36 percent for the Class of '69.

The prior study findings yield two conclusions: (1) placement time measures will be highly related to the economy level, and (2) school systems are achieving the ideal objective, i.e. placement of 100 percent of the employment-seeking vocational graduates on or before graduation. Let's turn now to the Class of '70 findings.

PRESENT SURVEY FINDINGS

The survey questionnaire asked, *How many weeks after high school did it take to get your first full-time job?* Also, *Were you looking for a job most of that time?* The latter question was introduced to check the possibility that the time between leaving high school and obtaining the first job did not necessarily reflect continuous, active job seeking.

ANALYSIS OF ALL GRADUATES COMBINED

The placement time data is shown in Table 4.7. About 38 percent of the employed graduates began their job immediately upon graduation, 23 percent began within two weeks and 12 percent began within between two and four weeks. Thus, 73 percent of the Class of '70 graduates *who had a job at the time of the survey* were employed within one month of graduation. The reader must be reminded that about 12 percent of the Class of '70 was unemployed and looking for work at the time of the survey and that 21 percent of those that were available for employment were unemployed and looking for work.

About 27 percent of those employed at the time of the survey required more than a month to find their first full-time job. This data must be tempered by the finding that only 43 percent of the graduates reported that they had been looking for a job most of the time between graduation and the start of the first full-time job. Apparently, many graduates do not actively look for employment immediately after graduation.

What conclusions can be drawn from these findings? The main conclusion that we wish to emphasize herein is that major city school systems do not perform as if it were their objective to place all job-seeking vocational graduates before the completion of school. More bluntly, the objective receives no official recognition. It is doubtful that even one out of ten school principals has any idea of his school's placement performance in terms of employment-bound vocational graduates. The concepts of placement responsibility and accountability simply have not been established at the high school principal level, or for that matter, at the school district level.

The superintendent level is generally uninformed and unconcerned (if superintendents were concerned, they would see to it that they were informed) and not pushing anyone further down the line to do better. The matter will be discussed more fully later.

ANALYSIS BY CITY CLASSIFICATIONS

How does city size (and indirectly school district size) in terms of population relate to question of weeks required to obtain the first full-time job? Table 4.7 indicates that there are no substantial differences between the three classes of cities. For Class I, II and III cities respectively, approximately 63, 59 and 63 percent of those who were employed at the time of the survey found their first full-time job within two weeks of graduation. (The reader is again reminded that the percentages are not of the total graduates, but of those found employed at the time of graduation.)

We conclude that placement time is unrelated to the population of the major city. Those with a population of one million or greater do no better or worse than those with a population between a quarter and a half a million.

ANALYSIS BY INDIVIDUAL CITY

Are there significant individual differences between the twenty-two major cities on the question of weeks required to obtain the first full-time job? Table 5.7 provides the data. The percentage of employed graduates who started their jobs immediately upon graduation ranged from a low of 27% (Baltimore) to a high of 50% (Boston) with a median city percentage of 38.9 when one excludes Minneapolis.

If we assume that those who begin within two weeks of graduation expressed the maximum for which the school system can claim placement credit, then the individual city differences are even more apparent. Arranged in descending order of the two weeks or less placement time statistic, the cities rank as follows:

Boston	75.6	Washington, D. C.	67.9
Minneapolis	74.7	Cleveland	65.7
Houston	68.3	Atlanta	65.1

Norfolk	64.3
Philadelphia	64.2
Omaha	63.7
Louisville	63.6
Chicago	63.5
St. Louis	62.6
Essex County	62.5
Rochester	62.4
New Orleans	60.5
Newark	60.0
Portland	59.2
New York	57.9
Seattle	56.1
Pittsburgh	50.6
Baltimore	51.0
San Francisco	51.0
Birmingham	50.0

It should be emphasized that these percentages can't be interpreted as a reflection upon the school district placement effort. They are a composite reflection of many factors, e.g. racial mix of graduate, occupational program mix of graduates, economy levels of the cities and other factors known to be related to placement performance.

What is more impressive than the individual city differences, which are certainly in evidence, is the basic similarity of the city data. All cities show placement times that range from, in effect, zero to two months or more for a significant percentage of graduates. Of the 22 cities, 20 had ten percent or more of their presently employed vocational graduates require two months or more to obtain the first full-time job. About 16 percent of all such graduates required more than two months to obtain their first job.

ANALYSIS BY TYPE OF PROGRAM

Are there any noteworthy differences between the basic types of vocational programs in terms of time required by graduates to get jobs? Table 6.7 indicates significant program differences. The percentage of graduates who started full-time jobs immediately ranged from a low of 31 percent for Gainful Home Economics to a high of 52 percent for Distributive Education. The largely cooperative (part-time school and part-time on-the-job learning) of Distributive Education accounts for the 52 percent who are immediately employed. About 40 percent (Table 6.8) already had a job with their employer before completing high school.

The mean values indicate that the time required to get the first job (for those employed at the time covered by the survey) ranks programs as follows: Agriculture (2.0), Health Occupations (2.7), Distributive Education (2.9), Trade and Industrial (3.1), Business Education (3.4), Technical Occupation (3.9), and Gainful Home Economics (4.9). For all programs the median values fall less than two weeks.

We conclude that there are significant differences between programs in terms of time required by graduates to obtain the first full-time job, we can't ascribe such differences to program characteristics per se. The differential operation of factors related to placement time among the programs, such as sex, race, etc. may account for the differences as much as employment opportunities.

ANALYSIS BY RACE

How do black and white graduates compare in terms of weeks required to get the first job after high school? Table 7.7 provides data to support the conclusion that it takes black graduates a week to two weeks longer on an average than white graduates, depending upon the type of program.

For all graduates, 39% of the whites and 32 percent of the blacks start to work immediately upon graduation. The mean weeks for whites is 3.2 versus 3.8 for blacks. The differences shown in Table 7.7 show that whites get their jobs sooner in all program areas but one, Gainful Home Economics. The small number of cases in the latter raise a question about what confidence one can place in the data for Gainful Home Economics.

We conclude that there are significant race differences. Whites do get their jobs sooner than blacks. However, one may also take a somewhat practical look at the differences. Our concern is not to document the well-established fact that blacks have, for many reasons including discrimination, more difficulty finding jobs than do whites of a like secondary education. From a practical standpoint, the black-white differences shown may not appear to be a serious problem. The problem lies beneath the surface of the data. With each passing week without a job, the graduate is more likely to take any reasonable job, even one that has nothing to do with his training, (Table 9.7). Thus, black graduates are more likely to be diverted from the occupational field studied than white graduates, meaning that more blacks than whites lose the benefit of their training. Table 7.7 shows that 45 percent of the white Trade and Industrial graduates started their jobs immediately whereas only 26 percent of the blacks fall into that category. Not all differences shown are of that magnitude, but the advantage of the white graduates is clearly indicated by the consistency of the differences.

ANALYSIS BY SEX

How do male and female graduates compare in terms of weeks required to get the first full-time job after graduation? Table 7.7 indicates that the males have a slight advantage. The mean differences shown for the basic program areas favor males in all program areas except Business Education where the tradition of females in Business Education occupations is too strong to overcome the general male advantage. The differences are not great, and one can't claim sex is a strong variable affecting time required to get the first job. It must be emphasized that the great majority of males are headed for occupations normally occupied by males in the past, and the same is true for females. Sex differences would be more pronounced where males or females attempted to enter occupations traditionally closed to them.

ANALYSIS BY RELATEDNESS OF EMPLOYMENT

How do the graduates employed in and out of the field for which trained compare in terms of time required to get their first full-time job after high school? Table 9.7 indicates that those employed in their field of study required significantly less time to obtain their first job than those employed out of their field of study. These results confirm earlier findings in the Process and Product study (1) and the earlier Project Metro study (9).

For the males, the mean number of weeks required to get the first job was respectively 2.3 and 3.7 weeks for those employed in and out of their field of study. Moreover, 58% of the former went ot work immediately after high school, presumably because their jobs were lined up before completion of high school, in contrast with only 36% of those not employed in their field. The outcome for female graduates was similar. The mean number of weeks required to get the first job was respectively 2.9 and 4.0 weeks for those employed in and out of their field. About 45% of the females employed in their field of study started their job immediately after high school whereas only 35% of those employed out of their field reported immediate employment. It is clear that those who enter the field for which trained find employment sooner than those who do not. However, the dynamics of the relationship are not so clear. It could be that the difference is accounted for by a large percentage of those not employed in their field, having tried to find employment in their field and after no success, taken employment out of their field. (About 19 percent of those not employed in their field reported that they tried but could not find jobs.) More likely, the difference is accounted for by differences in job skills that graduates employed in and out of their field had to offer their employers. Those employed in their field of training brought entry-level skills to their employer; those employed out of the field in effect brought no trained skills to prospective employers, and therefore had more difficulty finding jobs. The latter interpretation seems the more plausible of the two.

The findings are further confirmed by the comparison of white male and female graduates in and out of their field of employment. About 61% of the white males employed in their field of study reported beginning their first job immediately in contrast with 41% of male whites out of their field of study. The equivalent percentages for white females is 45 versus 35 percent; for black males, 47 versus 28 percent; and for black females, 43 versus 31 percent. Thus, anyway you look at it, those employed in their field of training got their jobs sooner than those not in their field of training. We believe the findings reflect the underlying relationship that the longer it takes to get the first job, the less likely it is to be in the field of training.

8. METHODS USED TO OBTAIN FIRST FULL-TIME JOB

INTRODUCTION TO THE TOPIC

The survey instrument asked, What answer best describes how you got your first job after completion of high school? (Please mark only one answer.) The answer alternatives were:

1. Already had job with employer
2. Thru vocational teacher
3. Thru school counselor
4. Thru school placement office
5. Thru other school personnel
6. Private employment agency
7. State employment agency
8. Thru parent or relative
9. Thru family or personal friend
10. On my own, without anyone's help

Hindsight indicates a possible ambiguity on the question. It is possible that students who already had a job, either lined up for after graduation or held before graduation, may have gotten their job through a source listed among the answer categories and therefore credited the source rather than mark "Already had job with employer." Others may have answered the question more literally, marking that they already had a job if that was the case, regardless of the source. The construction of the question would have been better as a two stage question, namely: Did you have your job lined up before leaving high school? What answer best describes how you got your first full-time job for the post high school period?

QUESTION RATIONALE

The purpose of the question was to assess how students get their first full-time job after high school, and particularly to assess to what extent school sources are acknowledged by students as a help in getting their first job. Implicit in the objectives derived from the manpower conversion equation is the concept that the schools or school districts have a major responsibility for the placement of vocational graduates with employers. We said that the school districts should seek to increase the percentage of qualified and interested graduates placed in the field for which trained. This is only likely to come about if the school systems assume an active role in the placement process.

Indeed, without a control of the placement process it becomes unrealistic to adopt the placement objective derived from the manpower conversion data. Data will be shown that indicates graduates placed by school personnel are more likely to be placed into the field for which trained than graduates who obtained their jobs through non-school sources, i.e. parents, relatives, friends, agencies and others.

PRIOR STUDY FINDINGS

The Process and Product study (1) found that 37, 29 and 40 percent respectively for the Class of '53, '58 and '62 graduates acknowledged school sources for help in finding the first full-time job after high school completion. The graduates were Trade and Industrial program graduates only, and were mainly from non-major city schools. Hence, the data is not strictly comparable to Project Metro data.

The Project Metro survey of Class of '68 vocationals (9) found that 34 percent of the vocational graduates acknowledged school sources, e.g. vocational teachers, counselors, placement services, etc. for help in finding the first full-time job after high school. The graduates involved came from all program areas, e.g. Trade and Industrial, Technical, Distributive Education, Health Occupations, Business Education and Vocational Agriculture. Despite the differences, then, in the composition of graduates and school locale, the percentage is not far off from the Process and Product study findings.

Surveys of Pennsylvania Class of '68, '69 and '70 vocational graduates (3, 4, 5) raised essentially the same question. The Class of '68, '69 and '70 graduates that acknowledged the help of school sources in finding the first post-high school full-time job were respectively 21, 16 and 18 percent. It should be noted that the Class of '69 and '70 entered the labor market in a recession economy when school sources of placement service are less likely to be effective.

While there are undoubtedly substantial differences between schools and school districts in terms of first job placement services acknowledged by vocational graduates, the data herein cited supports the conclusion that (1) the majority of employment-bound vocational graduates do not obtain their first full-time job through schools or school district sources and (2) such sources are less capable of finding jobs for graduates during a recession period than during a normal economy period. Regardless of economy level, non-school sources, such as parents, relatives, friends, employment agencies and the graduate without anyone's help, account for the majority of job placements.

PRESENT STUDY FINDINGS

The question is, What answer best describes how you got your first job after completion of high school? The analyses that follow apply only to those graduates who were employed full-time and not attending college or a non-college school.

ANALYSIS FOR ALL GRADUATES COMBINED

Table 4.8 indicates how the graduates answered the question. About 27 percent reported that they already had a job, either lined up or held, before graduation. It is regrettable that, for reasons discussed earlier, we can't determine the number and percent of these graduates who obtained their job through the various school and non-school sources. Undoubtedly, both types of sources operated to help the students find jobs.

About 22 percent of the graduates credited school sources, such as teachers and counselors, for assistance in finding their first job. If we assume that the 27 percent who had their jobs prior graduation obtained their jobs thru school sources (not very likely), then the most favorable interpretation is that 49 percent of those who found employment did so through school source help. If, going to the other extreme, we assume that none of the 27 percent who had a job prior graduation obtained their job through school sources (most unlikely), then the least favorable interpretation is that 22 percent obtained their job via school sources. Prior study findings plus probability suggest that the true percentage lies somewhere in between. We assumed that the 22% that credited school sources applies also to the number who had a job prior graduation. On that basis, the data was recalculated and we estimate that a minimum 28 percent would have credited school sources had the question been better phrased. It is interesting to note that the Class of '58 survey, also for a recession economy, revealed 29 percent had acknowledged school sources. We would be inclined to say the true percentage is higher, possibly as high as between 34 and 40 percent because those who already have jobs prior graduation are likely to include a higher percentage of cooperative program students. Many of the latter continue, as we shall later show, with their co-op employer after graduation. All such cases should really be credited to school sources.

Now to the basic conclusion. Despite stretching all reasoning to increase the percentage of graduates who did or should have credited school sources for job placement assistance, the inescapable conclusion remains, namely, the majority (60 to 70%) of the graduates got their first job through sources other than school sources. Probably in a normal economy, this percentage would lower, i.e. a greater percentage would have credited school sources for job placement assistance.

ANALYSIS BY CITY CLASSIFICATION

How does size of the city (and indirectly the school district) relate to the methods graduates report they used to find their first job? Table 4.8 provides the data.

There are no significant differences between the three classes of cities in terms of percentage of graduates who reported obtaining their job through either school or non-school sources. The overall pattern of percentages is the same for all three classes of cities. Only two factors show a consistent trend: (1) the percentage reporting they had a job prior graduation increases from 24.7 through 26.1 to 30 percent for Class I, II and III cities respectively. This would indicate that graduates are more likely to leave school with a job in the smaller cities. Even so, the percentage differences are not impressive, (2) the percentage reporting assistance from vocational teachers decreases from 11.2 through 7.0 to 6.8 percent for Class I, II and III cities respectively. Again, the differences are too slight to draw any firm conclusion.

We conclude the size of city (school district) in terms of population is unrelated to the methods or sources by which vocational graduates find their first job.

ANALYSIS BY INDIVIDUAL CITY

Are there marked individual city differences in terms of the sources graduates reported having used to find their first full-time job? Does New York, for example, show a different pattern than, say, Omaha, Nebraska? Table 5.8 shows the data.

The percentages for "Already had a job" ranged from a low of 19% (New York) to a high of 40% (Boston) if one excludes Minneapolis. (It should be emphasized that the small number of cases in some cities may cause some percentages to be of questionable reliability.)

The percentages reported for "Thru the vocational teacher" are all less than 15 percent. Within the range from 2.1 to 14.9 percent, the variation does suggest vocational teachers are more active as a job placement resource in some cities than in others. The same may be said for the percentages reflecting school counselor and school placement services assistance.

When all school source percentages are combined into a single percentage reflecting school assistance, the cities rank as follows:

Cleveland	35.6	Houston	18.7
Washington, D. C.	29.0	Minneapolis	18.6
New York	28.0	Boston	17.6
Baltimore	25.4	Norfolk	17.0
Philadelphia	25.2	New Orleans	13.8
Chicago	24.3	San Francisco	12.6
Pittsburgh	21.8	Seattle	11.9
Rochester	21.4	Portland	10.8
Newark	20.4	Atlanta	9.1
Essex County	20.0	Omaha	6.1
St. Louis	19.4	Birmingham	0.0
Louisville	19.2		

The percentages of school personnel acknowledged by the graduates in the various cities range from zero percent (Birmingham) to 36% (Cleveland). It is interesting to note that Cleveland had the most highly organized school placement service, and that the data reflects Cleveland's concern with job placement as an essential school district function.

We are ready to conclude that school districts do differ in the extent to which their graduates acknowledge school sources of help for finding the first full-time job. Such differences do not necessarily reflect differences in placement philosophy or effort. They may reflect differences in job opportunity more than anything else. The study has no control data to rule out the latter interpretation.

There is little in the percentages associated with non-school sources to indicate impressive individual city differences. As before, the differences between cities are less impressive than the differences between sources of job placement assistance. The latter differences are all the more confirmed by the lack of impressive individual city differences.

ANALYSIS BY TYPE OF PROGRAM

How do the different types of program fields compare in terms of methods used to get the first full-time job? Does Distributive Education, which is predominantly a cooperative education program, show a different pattern than say the Trade and Industrial program? Table 6.8 provides the data, and confirms program differences.

The percentages for "Already had job with employer" range from a low of 14% (Health Occupations) to a high of 39% (Distributive Education). These results support the interpretation that graduates of cooperative education programs are more likely to leave school with a job because they continue with their co-op employer.

Acknowledgment for vocational teachers is greatest for Health Occupation graduates (20%) and extremely low for Gainful Home Economics (2%) which tends to include a high percentage of so-called disadvantaged.

The program differences are somewhat more impressive when school percentages are combined; they range from a low of 14% for Distributive Education to a high of 39% for Health Occupations. Even here, the two extremes are questionable values around which to draw a conclusion. The Distributive Education percentage is low because so many already had a job through their co-op employer. The small number of cases in Health Occupations raises a question about the reliability of the percentage values.

We are inclined to conclude that the program differences are negligible with the exception of the cooperative education component, which probably accounts for the higher percentage of Distributive Education graduates who already had a job with their employer prior graduation.

ANALYSIS BY RACE

How do black and white graduates compare in methods used to get their first full-time job after high school? Table 7.8 provides data that indicates relatively little differences when totals are compared, but some impressive differences in certain program areas.

Let's examine the totals. About 27% of the whites already had a job prior graduation versus 21% of the blacks. The six percent difference undoubtedly reflects the disadvantage of the blacks in seeking jobs. Nevertheless, it is not a crucial difference. Only two other differences are worthy of attention. A slightly higher percentage of blacks acknowledge school counselors and state employment agencies. The rest of the differences are negligible. In general, then, we see no strong black-white differences when all graduates are combined.

Within program areas, some strong race differences do appear. The percentage reporting "Already had a job with employer" for Trade and Industrial curricula is 34% for the whites and 18% for the blacks, for Distributive Education the equivalent percentages are 45% for the whites and 28% for the blacks, and for Health the same percentages are 22% for the whites and 8% for the blacks. The greater reliance of the black graduates upon counselors and state employment agencies is confirmed in the specific program areas.

However, what is most impressive is not the differences, but the basic similarity of the black and white data. There is no evidence that school personnel are favoring whites over blacks. There is no evidence that blacks are less resourceful than whites in finding a job on their own. There is no evidence that blacks rely less on parents, relatives and family friends than do whites. It is the similarity of the data that impresses, not the differences. One can, of course, argue that some of the school source differences should favor the blacks because of the disadvantage suffered by the latter in the labor market. That is not a debate for the researcher to enter.

ANALYSIS BY SEX

How do male and female graduates compare in terms of methods used to get their first full-time job after high school? Table 7.8 presents the data.

The overall pattern of percentages shown in Table 7.8 suggests there is no significant difference between how males and females get their first post-school job. The data does indicate that female graduates use private employment agencies more frequently (1.6 vs. 6.4%), are less likely to obtain their job thru a parent or relative (8.5 vs. 4.1%) and are more likely to use the school placement services (6.2 vs 9.1%). However, as can be seen, the percentage differences are not impressive. The similarity of the comparative data is more impressive than the differences.

We conclude that the graduates of both sexes show essentially the same pattern of use of various resources to obtain their full-time job.

ANALYSIS BY RELATEDNESS OF EMPLOYMENT

How do graduates employed in and out of their field of study compare in terms of the methods used to obtain their jobs? Do those in their field of training, for example, show a distinctively different pattern than those not in their field? Table 9.8 provides the data.

First, a larger percentage of those in their field reported they already had a job prior leaving high school. The male in vs. out percentages are 33 and 26 percent. The female in vs. out percentages are not different, indicating that placement in and out of field of study is unrelated to having a job prior leaving school for female graduates.

Let's examine the differences in terms of percentage placed by school and non-school sources. About 31 percent of the males employed in their field of study were placed by school sources. In contrast, only 14 percent of the males out of their field were placed by school sources. About 16 percent of males employed in the field were placed through non-school sources, excluding those who obtained their job on their own without any help. The equivalent percentage for those employed out of their field is 33 percent. Thus, we see a clear reversal pattern. Those who obtained jobs through school personnel are more likely to be found in the field for which trained, whereas those who obtained their jobs through non-school personnel are more likely to be found employed out of their field of study. This basic finding is confirmed for female graduates, for white male and female graduates and for black male and female graduates in the balance of the Table 9.8 data.

The data is clear, but the interpretation is not. Do school personnel do a better job of placing graduates into the field for which trained than non-school persons? It would appear so, and we believe that to be the case. However, the possibility remains that a large percentage of those not placed by school personnel are students who are not qualified and/or interested in employment in their field. Such students would naturally turn to other sources for assistance in finding jobs. As a result, the non-school sources to whom these graduates turned for help would show a higher percentage of acknowledgment from those employed out of the field of study.

Of the school sources, the vocational teacher seems to be particularly effective. For males in and out of the field of study, the percentage acknowledging their vocational teacher is 16 vs. 5 percent. The equivalent percentages for females are 11 and 4 percent. The equivalent percentages for white males are 18 and 5 percent; for white females, 12 and 4 percent; for black males, 18 and 5 percent; and for black females, 12 and 6 percent. The ratios range from 2 to 1 to 3 to 1, all showing that those employed in their field of study acknowledge the help of their vocational teachers in finding jobs more frequently than those employed out of their field of study.

The data does support the conclusion that the major city school districts are rendering a job placement service, and they are trying to place their graduates in the fields for which trained. The issue is one of how effectively are they doing the job. The data would indicate that there is more than plenty of room for improvement.

9. TYPES OF JOBS REPORTED BY GRADUATES

INTRODUCTION TO THE TOPIC

Of those who were employed at the time of the survey, this questionnaire item asked, What kind of a job do you now have? Write in your job title, like auto mechanic, secretary, electrician, etc.

The information was requested for two reasons (1) to provide a basis for checking out the validity of the ratings made by graduates on the relationship between present job and the vocational course taken in high school and (2) to examine in more detail the kinds of jobs held by graduates not employed in their occupational field of study.

About 80 percent of the graduates who were employed wrote in a job title on the questionnaire. This was determined by taking a random sample of 50 questionnaires for each of the 22 cities from among the questionnaires of graduates who reported full-time employment. The total of 1,074 questionnaires was examined for write-ins of job titles. This exercise established that the great majority provided us with job titles and set the stage for the subsequent analysis.

THE VALIDITY OF THE GRADUATES' RATING OF JOB-COURSE RELATEDNESS

The graduates who were employed full-time were asked to mark whether their present job was in the (1) same occupation (as studied in high school), (2) a highly related occupation, (3) a slightly related occupation or (4) completely different occupation. We classified the first two responses as employed in the field studied, and the latter two responses as employed out of the field studied.

The validity analysis was applied to white and black males as follows. For each city, the questionnaires of white and black males employed in their field were separated from those employed out of their field. For each such group, the job title reported by the graduate was recorded on a form next to the title of the vocational course completed by the graduate. Such a list was prepared for each city. Next, for each city, the first twenty cases (or all, whichever was less)were selected for verification of how the graduates reported the relatedness of job to vocational course taken. The question was, *Do we agree with the classification of the graduate being in or out of his field of study based upon the graduate's rating of relatedness of present job to vocational course taken?*

Table 3.2 presents the results of our verification checks. First, it is clear that we do not agree with the judgments of *all* graduates. Some do make an error in describing the relationship between job held and course studied. Second, it is equally clear the overwhelming majority of graduates make judgments with which we can agree. Thus, we agreed with about 91% of the white male graduates who reported employment in the field for which trained and 88% of the male black graduates in the same category. Similarly, we agreed with 84% and 93% of white and black male graduates respectively who reported employment out of the field of study.

On the above basis, we conclude that the procedure of having graduates describe the relationship between present job held and vocational course taken in order to classify them as employed in or out of their field of vocational study is *valid*. Moreover, the amount of error that does occur does not warrant an attempt to correct the data reported for Section 10 of Chapter 3. Both those employed in and out of their field make occasional errors that cause them to be incorrectly classified. Correction would not change the picture presented in Section 10.

There will be those who will question the correctness of our own judgments of the correctness of the judgments made by the graduates. The reader may judge for himself by examining the data shown in Tables 3.3 and 3.4.

Table 3.3 lists the first 100 male white cases with whom we agreed that they were employed *in* the field from the total of 146 such cases indicated in Table 3.2. By comparing the title of the job held with the title of the vocational course taken, the reader may draw his own conclusion about whether or not the cases represented are employed in their field. We must emphasize that the table represents a *random selection*, not a picked selection, from among those whom we agreed were in their field of study.

ESRI PERSONNEL JUDGMENTS (WHITE MALES)	RELATEDNESS OF PRESENT JOB			
	IN THE FIELD		OUT OF FIELD	
	N	%	N	%
Agree with graduate	146	90.7	156	83.9
Disagree with graduate	12	7.4	25	13.4
Unable to judge	3	1.9	5	2.7
TOTAL	161	100.0	186	100.0

(BLACK MALES)				
Agree with graduate	49	87.5	99	93.4
Disagree with graduate	5	8.9	7	6.6
Unable to judge	2	3.6	0	0.0
TOTAL	56	100.0	106	100.0

TABLE 3.2 RESULTS OF JUDGING RATINGS MADE BY MALE VOCATIONAL GRADUATES OF THE RELATEDNESS OF PRESENT JOBS HELD TO VOCATIONAL COURSE STUDIED IN HIGH SCHOOL.

We concluded that the great majority of vocational graduates can correctly assess the relatedness of vocational course studied to present job held.

VOCATIONAL CURRICULUM	JOB TITLE PRESENT JOB	VOCATIONAL CURRICULUM	JOB TITLE PRESENT JOB
Diesel mechanic	Mechanics helper	Carpentry	Cabinet maker
Auto mechanic	Garagemen	Drafting	Mechanical drafting
Auto body repair	Appren. body repairman	Printing trades	Pressman
Diesel mechanic	Truck mechanic	Electrical	Telephone installer
Machine shop	Machine operator	Distributive education	Shoe salesman
Auto mechanic	Auto lubrication man	Electrical, construct.	Electrician's helper
Metal trades	Steel fitter	Carpentry	Apprentice carpenter
Agriculture occupation	Landscape gardener	Mech. drafting/design	Carpenter's helper
Plumbing	Apprentice plumber	General clerical	Clerk typist
Electrical, industrial	Electrician's helper	Food trades	Donut fryer
Machine shop	Tool grinder	Machine shop	Lathe operator
Mill/cabinetry	Apprentice carpenter	Auto body	Body & fender painter
Printing	Flyboy - web press	Sheet metal	Furnace installer
Electrical	Electrical maintenance	General clerical	Shipping & mail clerk
Food trades	Cook-city school	Agriculture production	Veterinarian's assistant
Auto body repair	Auto mechanic	Agriculture production	Farm hand
Radio/television	Repairman, T. V.	Agriculture mechanics	Landscaper
Auto mechanic	Machinist	Woodworking	Elevator construction
Mill/cabinetry	Carpenter's helper	Drafting	Draftsman
Radio/television	Junior tester	Architectural design	Junior draftsman
Auto occupations	Auto mechanic	Mill/cabinetry	Carpenter
Patternmaker	Drill press operator	Printing trades	Printer
Distributive education	Bank trainee	Machine shop	Machinist
Radio/television	Color TV repair	Business education	Office clerk
Welding	Welder	Plumbing	Apprentice plumber
Electronics	TV repairman	Electrical	Electrical maintainer
Machine shop	Planer operator	Printing	Apprentice printer
Electrical	Electric motor repair	Sheet metal	Sheet metal
Drafting	Draftsman	Electricity	Electrical helper
Printing trades	Pressman	Auto mechanics	Auto mechanic
Electrical	Motor winding	Business education	General clerical
Printing	Lithographer	Air condition/refrig.	Air cond. serviceman
Distributive education	Asst. mgr.-shoe store	Printing	Press apprentice
Plumbing	Plumber's helper	Auto body	Collision man
Tool & die making	Machinist	Machine shop	Tool & die maker
Mill/cabinetry	Woodworking	Printing	Hand composition
Commercial art	Apprentice artist	Air conditioning	Heating & cooling mech.
Machine shop	Machine operator	Auto mechanic	Auto mechanic
Welding	Welder	Carpenter	Carpenter
Drafting	Mechanical drafting	Auto body	Collision painter
Woodworking	Carpenter	Electrical, construct.	Electrician
General clerical	Typist	Auto mechanic	Auto parts mechanic
Printing	Litho-stripper	Drafting/design	Draftsman
Radio/television	TV repairman	Plumbing	Apprentice plumber
Sheet metal	Sheet metal man	Woodworking	Apprentice carpenter
Air conditioning	Refrigeration service	Drafting	Draftsman
Electrical	Electrical wiring appr.	Auto mechanic	Auto mechanic
Printing	Press helper	Drafting	Mechanical draftsman
Mill-cabinetry	Cabinet making	Machinist	Tool grinder
Distributive education	Bank clerk	Carpentry	Apprentice carpenter

TABLE 3.3 COMPARISON OF VOCATIONAL CURRICULUM STUDIED AND TITLE OF JOB PRESENTLY HELD BY 100 RANDOMLY SELECTED WHITE MALE GRADUATES EMPLOYED IN THEIR FIELD OF STUDY.

Table 3.4 lists the first 100 male, white cases with whom we agreed they were out of their field of study. All such cases claimed that their present job was only slightly related or completely unrelated to the vocational course studied. Once again, we emphasize that the cases were in effect random selections from among the 156 cases of agreement reported for white males classified as out of their field. The reader is urged to make his own comparative judgments.

Our conclusion stands: The great majority of graduates can make valid judgments about the relationship between their present job held and the type of vocational course taken.

TYPES OF JOBS HELD BY THOSE EMPLOYED OUT OF THEIR FIELD

Let's now turn to another issue. What types of jobs are held by those whom we agree are employed out of their field? Do the job titles held reflect that their career opportunities are better, worse or about the same as those employed in their field? Do the job titles reported reflect unskilled, semi-skilled or skilled type of work? Could such jobs have been obtained without the benefit of vocational education? These are important questions to raise because of our findings that 55 percent of the full-time employed Class of '70 graduates were employed out of the field for which trained.

Let's return to Table 3.4. It lists the jobs held by 100 male, white graduates. Each job title was rated either (1) unskilled or semi-skilled, (2) skilled, (3) trainee or (4) not classifiable. The job titles are coded so that the reader may check our judgments. On that basis, we found 79 cases to be unskilled or semi-skilled, 15 cases to be skilled, 3 to be trainees and 3 that could not be classified. On this basis, we generalize that about 75 to 80 percent of the white males employed out of their field of study are holding unskilled or semi-skilled jobs that could have been held without the benefit of vocational education. Moreover, the nature of the jobs held represents, in general, a diminished career potential over what would have been the case had the graduates obtained employment in the field for which trained.

Let's take a further look at the issue as it relates to black graduates. Table 3.5 lists the jobs held by 100 black male graduates. Each title was rated as indicated above. On that basis, we found that 84 held unskilled or

VOCATIONAL CURRICULUM	JOB TITLE PRESENT JOB	VOCATIONAL CURRICULUM	JOB TITLE PRESENT JOB
Auto mechanic	Stock clerk 1	Industrial chemistry	Laborer 1
Electrical	Laborer 1	Electrical	Stock boy 1
Sheet metal	Factory worker 1	Drafting	Material stocker 1
Electronics technician	Factory worker 1	Cabinetry	Deliveryman 1
Electronics technician	Manager trainee 3	Printing	Errand boy 1
Auto body & fender	Laborer 1	Machine shop	Laborer 1
Auto body & fender	Kitchen helper 1	Food trades	Clerk 1
Auto mechanic	Busboy 1	Welding	Meatcutter 2
Auto mechanic	Bottler 1	Welding	Order filler 1
Distributive education	Messenger 1	Electronics	Dockman 1
Distributive education	Factory Worker 1	Machine shop	Meatcutter 2
Electronics technician	Baker (factory) 1	Horticulture	Salesman 1
Electronics technician	Roofer 2	Printing	Truckdriver 1
Tool & die design	Laborer 1	Drafting	Truckdriver 1
Carpentry	Sexton 1	General clerical	Painter 2
Auto mechanic	Carpet cutter 1	Bookkeeping	Laborer 1
Auto mechanic	Dairy employee 1	Patternmaker	Mailboy 1
Drafting	Clerk 1	Electronics, Industrial	Shipping clerk 1
Drafting	Factory worker 1	Auto body	Brick mason 2
Drafting	Stockboy 1	Distributive education	Assembly worker 1
General clerical	Asst. restaurant mgr. 3	Industrial electronics	Laborer 1
General clerical	Photo developer 2	Machine shop	Police dept. 4
General clerical	Chauffer 1	Mill/cabinetry	Scrap iron handler 1
Acct./bookkeeping	Grounds keeper 1	Auto body	Construction laborer 1
Acct./bookkeeping	Mail clerk 1	Air conditioning	Surveyor 2
Woodworking	Factory worker 1	Carpenter	Fork lift driver 1
Patternmaking	Assembler 1	Drafting	Dry cleaning 1
Welding	Butcher 2	Radio/television	Offset printing trainee 3
Electricity	Produce market 1	Machine shop	Work in storeroom 1
Drafting	Meter reader 1	Drafting	Warehouse worker 1
Radio/television	Mailroom clerk 1	Auto body repair	Fenceman 1
Plumbing	Janitor 1	Aviation occup.	Duplicator 1
Drafting	Truck driver 1	Electrical	Factory work 1
Welding	Pressman 2	Machine shop	Stockboy 1
Electrical	Sales clerk 1	Drafting	Laborer 1
Drafting	Painter 2	Metal trades	Gas station attendant 1
Plumbing	Vending machines 1	Agriculture	Warehouse worker 1
Food trades	Printing apprentice 3	Drafting	Sheet metal worker 2
Welding	Furniture store 1	Mill/cabinetry	Mechanic 4
Woodshop	Auto mechanic 2	Printing	Deliveryman 1
Drafting	Appliance repair 2	Drafting	Waiter 1
Electronics	Laborer 1	Auto body repair	Porter 1
Metal trades	Fork lift operator 1	Machine shop	Work in store room 1
Electrical	Welder 2	Drafting	Receiving clerk 1
Instrumentation technol.	Clerk 1	Metal trades	Receiving clerk 1
Drafting	Baker 2	Electrical	Factory work 1
Machine shop	Stockboy 1	Radio/television	General maintenance 1
Tool & die making	Sales representation 1	Agriculture	Meter reader 1
Data processing	Copy boy - newspaper 1	Electrical	Produce worker 1
Electrical	Sales clerk 1	Auto mechanic	Sheetrock finisher 4

TABLE 3.4 COMPARISON OF VOCATIONAL CURRICULUM STUDIED AND TITLE OF JOB PRESENTLY HELD BY 100 RANDOMLY SELECTED WHITE MALE GRADUATES EMPLOYED OUT OF THEIR FIELD OF STUDY. Rated unskilled or semi-skilled (1); Rated skilled (2); Rated trainee (3); and rated not classifiable (4).

VOCATIONAL CURRICULUM	JOB TITLE PRESENT JOB	VOCATIONAL CURRICULUM	JOB TITLE PRESENT JOB
Equipment repair	Messenger 1	Auto mechanic	Porter 1
Air conditioning	Stockman 1	Bookkeeping	Service station 1
Aircraft occupations	Mail sorter 1	Machine shop	Truck driver 1
Electrical	Police trainee 3	Drafting	2nd class helper 1
Food trades	Stock clerk 1	Electronics	Frameman 4
Plumbing	Stock boy 1	Mill/cabinetry	Mail clerk 1
Radio/television	Maintenance helper 1	Food trades	Clerk 1
Diversified coop	Mail carrier 1	Upholstery	Tobacco worker 1
Mill/cabinetry	Delivery truck 1	Business machine repair	Clerk 1
Commercial art	Messenger 1	Drafting	Shipping clerk 1
Electrical	Carpet cutter 1	Equipment repair	Postal clerk 1
Auto body repair	Truck driver 1	Bookkeeping	Model cities agent 1
Machine shop	Shoe salesman 1	Auto mechanic	Tree trimmer 1
Bookkeeping	Porter 1	Drafting	Leafer operator 1
Drafting	Butcher 2	Printing	Food clerk 1
Welding	Warehouse worker 1	Machine shop	Porter 1
Distributive education	Mailman 1	Business education	Messenger 1
Bookkeeping	Stock man 1	Data processing	Stock clerk 1
Data processing	Laundry man 1	Electronics	Grocery clerk 1
Electronics	Factory work 1	Mill/cabinetry	Porter 1
Printing	Laborer 1	Bookkeeping	Stock clerk 1
Auto mechanic	Garbage collector 1	Machine shop	Police cadet 3
Appliance repair	Common laborer 1	Electronics	Parking attendant 1
Drafting	Mail clerk 1	Distributive education	Police cadet 3
Auto mechanic	Teamster 1	Auto mechanic	Meat cutter apprentice 3
Food trades	Machine operator 4	Bookkeeping	Warehouse man 1
Mill/cabinetry	Tobacco worker 1	Drafting	Programmer 2
Tailoring	Clerk 1	Machine shop	Coin collector 1
Plumbing	Laborer 1	Electrical	Porter 1
Electrical, industrial	Clerk 1	Printing	Model cities agency 1
Bookkeeping	Post office clerk 1	Drafting	Packer 1
Drafting	Assistant cook 2	Printing	Warehouse worker 1
Welding	Porter 1	Food trades	Mail helper 1
Auto body repair	Factory worker 1	Distributive education	Machine operator 1
Business mach. repair	Distributor 1	Auto mechanic	Welder 2
Distributive education	Supply clerk 1	Carpentry	Government worker 4
Masonry	Auto attendant 1	General clerical	Factory worker 1
Air conditioning	Oil salesman 1	Machine shop	Truck driver 1
Drafting	Messenger 1	Electronics	Factory worker 1
Welding	Furniture mover 1	Mill/cabinetry	Clerk 1
Food trades	Laborer 1	General clerical	Shipwright 2
Graphic arts	Sales clerk 1	Drafting	Meat cutter 2
Carpentry	Packer 1	Distributive education	Mechanic 2
General clerical	Stock work 1	Printing	Laborer 1
Research lab tech.	Auto mechanic 2	Bookkeeping	Data tech. 2
Electrical, industrial	Sheet metal 2	Carpentry	Laborer 1
Auto mechanic	Laborer 1	Business education	Janitor 1
Distributive education	Machine operator 1	Drafting	Shipping clerk 1
Food trades	Parcel sorter 1	Commercial art	Machine operator 1
Bookkeeping	Shipping clerk 1	Business education	Truck driver 1

TABLE 3.5 COMPARISON OF VOCATIONAL CURRICULUM STUDIED AND TITLE OF JOB PRESENTLY HELD BY 100 RANDOMLY SELECTED BLACK MALE GRADUATES EMPLOYED OUT OF THEIR FIELD OF STUDY. Rated unskilled or semi-skilled (1); Rated skilled (2); Rated trainee (3); and rated not classifiable (4).

semi-skilled jobs, 9 held skilled jobs, 4 were trainees and 3 could not be classified. On this basis, we generalize that between 80 and 85 percent of the black males employed out of the field for which trained are employed in unskilled or semi-skilled jobs that could have been obtained without the benefit of vocational education. We can't escape the unpleasant conclusion that if black graduates can't find employment in the field for which trained (Only 28% of the employed black males were employed in the field for which trained), they are most likely to find jobs at the unskilled or semi-skilled level which probably could have been obtained without vocational education.

The conclusion is not limited to blacks. It applies to all vocational graduates who are not employed in the field for which trained. The great majority hold down unskilled or semi-skilled jobs which require no vocational education. This points up what we have been emphasizing right along. Vocational education must adopt the objective of continuous improvement in the percentage of graduates placed into the field for which trained. Otherwise, the graduates will go out by the same door they came in, namely without an occupational skill and headed for an unskilled or semi-skilled job.

The findings raise serious questions about vocational education as a major supplier of skilled manpower.

10. RELATION OF PRESENT JOB TO VOCATIONAL COURSE

INTRODUCTION TO THE TOPIC

The survey instrument asked, How related is your present job to your high school occupational course? The available response categories were •same occupation studied •highly related occupation •slightly related occupation and •completely unrelated occupation. The question was answerable by all graduates who indicated full-time or part-time employment on a preceding questionnaire item. The data herein presented, however, is only for those graduates who were employed full-time and not attending either college or a non-college school. (N = 5981 or 38% of the total graduates who returned questionnaires.)

QUESTION RATIONALE

The item follows logically from the manpower conversion model and one of the basic objectives derived therefrom, namely that vocational education systems should show continuous improvement in the percentage of qualified and interested graduates who are successfully placed into the field for which trained.

Concern for placement of graduates into the occupational field studied has been traditional in vocational education. Even without the benefit of a theoretical rationale for such concern, as illustrated by the manpower conversion equation, the vocational educator's common sense has told him that placement of graduates into the fields for which trained is one of the major yardsticks for evaluating the effectiveness of vocational education. Very clearly, if the majority of vocational program graduates do not seek post-high school employment in the fields for which trained, the whole concept of vocational education as a major supplier of skilled manpower is open to question.

PRIOR STUDY FINDINGS

There is a wealth of literature reporting follow-up survey data on the issue of relatedness of post-high school employment to type of vocational course studied. The interested reader may wish to refer to L. Sharp's excellent review of follow-up survey literature.[1] We will limit our comments about prior study findings to ESRI conducted surveys because the question has been used in identical form in all such surveys.

The Process and Product study (2) found that 51, 44 and 49 percent respectively of the Class of '53, '58 and '62 trade and industrial program graduates took their first full-time job after high school in the fields for which trained. The percentages were obtained by combining the percentages for those employed in the same occupation studied and in occupations highly related to the occupation studied. It is noteworthy that the recession year of 1958 had a depressing effect upon the percentage of graduates who found employment in the fields for which trained. The phenomenon is documented with further analyses in the Process and Product study. The same study reported the percentages of Class of '53, '58 and '62 graduates employed in their occupational field of study as of the year 1964. That would be respectively 11, 6 and 2 years after completion of high school. The respective percentages were 36, 39, and 44 percent, indicating a gradual net movement out of the field for which trained with the passing of years out of high school.

More appropriate to the present study is the Project Metro Class of '68 survey findings on the issue. The reader will recall that the Class of '68 survey involved twelve of the same cities involved in the Class of '70 survey. For the relationship between the first full-time job and the vocational course studied, the percentages of graduates reporting themselves employed in the field of study ranged from a low of 26.2 percent (Newark) to a high of 57 percent (Louisville) with an all cities combined percentage of about 47 percent. These values are not directly comparable to those reported for the Process and Product study because the latter was based upon a survey sample in predominantly non-major city locations. Even so, considering the span of years involved the percentages are remarkably close.

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[1] Sharp, Laure and Krasnegor, R. The Use of Follow-up Studies in the Evaluation of Vocational Education. Washington, D. C.: Bureau of Social Science Research, 1966.

A similar Class of '68 survey was done for the Department of Education, Commonwealth of Pennsylvania. (3) It, too, involved vocational program graduates from the seven basic vocational education fields. The results indicated that about 49 percent of the full-time employed graduates had their first job in the field for which trained.

The Pennsylvania follow-up survey was repeated for the Class of '69 (4), a class which entered the labor market during a downturn in the economy that has to this date not recovered. About 45 percent of those employed full-time reported themselves to be employed in the field for which trained. The percentage is almost identical for that obtained for the Class of '58 which entered the labor market in a recession year.

PRESENT SURVEY FINDINGS

ANALYSIS FOR ALL GRADUATES COMBINED

How related is your present job to your high school occupational course? The question is analyzed only for those Class of '70 vocational graduates who were employed full-time at the time of the survey and not attending college or school in conjunction with full-time employment. About 38 percent of the Class of '70 returns fall into this category. It is important that the reader keep in mind that the percentages reported in this section are based upon a special sub-group of full-time employed graduates, not of the total Class of '70 graduates.

Table 4.10 shows the response for the combined graduates. The percentage of graduates reporting employment in the same occupation studied is 22.2 percent. (This is equivalent of 16 percent of the total Class of '70 vocational output from the twenty-two major cities.) Another 22.4 percent reported that they were in a highly related occupation. Thus, the total percentage found employed in the field for which trained came to 44.6 percent, only slightly less than the 46.7 percent found for the Class of '68 graduates in twelve of the twenty-two major cities included in the Class of '70 survey. The equivalent percentage based upon the total Class of '70 vocational output is 16.3 percent. From the standpoint of the manpower conversion equation logic, the latter is a critical percentage. It forces our attention to the fact that only 16 percent of vocational program graduates in the major cities surveyed became full-time employed in the occupational field studied. Is this the kind of percentage that would permit the conclusion that public secondary vocational education in major cities is a major supplier of skilled manpower to the employer community? If there are shortages of skilled manpower of the kind that secondary vocational education produces, can the employers rely upon secondary vocational education for the necessary supply of skilled manpower?

Let's continue with the data. About 24 percent of the graduates reported full-time employment in an occupation slightly related to the occupation studied. Some educators may prefer to add this percentage to the 44.6 percent that we interpret as employed in their field of study. That would raise the percentage to a more comfortable 69 percent employed in their field of training. We prefer to stick to our interpretation that an occupation only slightly related to the occupation studied is outside of the field for which trained. Others may interpret the data as their need dictates.

Lastly, about 31 percent reported employment in an occupation completely unrelated to the occupation studied. For the Class of '68, the equivalent percentage was 33.2 percent. For the Pennsylvania Class of '69 survey, the equivalent percentage was 30 percent. For the Process and Product study Class of '53, '58 and '62 surveys, the equivalent percentages were respectively 33, 41 and 37 percent. It would seem that regardless of the economy, somewhere between 30 and 40 percent of the employment-bound vocational graduates (for all vocational programs combined) find employment in an occupation completely unrelated, in their opinion, to the occupation studied in high school. This is not acceptable if we agree that vocational education should operate within the logic of the manpower conversion model.

ANALYSIS FOR CITY CLASSIFICATION

How do the Class I, II and III cities compare in terms of the percentage of full-time employed graduates who reported employment in the same occupation studied, a highly related occupation, a slightly related occupation and a completely unrelated occupation. Table 4.10 provides the data. The percentages are essentially the same for all answer categories. For example, the percentages for "employed in same occupation studied" is 22.8, 22.3 and 21.2 respectively for Class I, II and III cities. Other percentages are equally undifferentiating. Therefore, the conclusion is that city size (and indirectly school district size) in terms of population is unrelated to the percentage of graduates placed in and out of the field of study.

ANALYSIS BY INDIVIDUAL CITY

How do the individual cities compare in terms of the percentages of vocational graduates employed in and out of their field of study? Are some cities doing substantially better than others in placing graduates into the occupational fields for which trained? Table 5.10 provides the comparative data.

The percentages for graduates employed in the same occupation studied range from a low of 14.6% (Seattle) to a high of 27% (Louisville) if one excludes Minneapolis. However, ten of the cities fall into a narrow band of between 20 and 23 percent. Hence, while there are impressive differences one must also be impressed by the similarity of the data for most of the cities. When we combine the percentages of those employed in the same occupation with those employed in a highly related occupation, we have the percentage employed, by our definition, in their field of study. Such percentages range from a low of 33% (Birmingham) to a high of 54% (Norfolk) with 15 out of the 23 percentages falling between 40 and 50 percent. Without implying any credit or discredit to the school systems, we can definitely conclude that some cities are doing substantially better than others in placing their graduates into the occupational fields for which trained. But it is the homogeneity of the percentages that is more impressive, and it is trying to tell us something. We believe the homogeneity in the percentages is the result of an underlying homogeneity in school district acceptance of responsibility for placement of graduates into the fields for which trained. They are more alike than different in the lack of acceptance of a responsibility for supplying trained manpower to employers who need the entry-level skills turned out by their vocational programs.

Please refer to Table 3.1 for the percentage of graduates employed in their field of study based upon (1) total graduates employed full-time, (2) total graduates available for work and (3) total graduates surveyed. All percentages are a challenge to the interpretation that public vocational education in our major cities is a major supplier of skilled manpower to the region served.

ANALYSIS BY TYPE OF PROGRAM

How do the different basic programs compare in terms of percentage of graduates employed in the field of studies, based upon total full-time employed graduates? Table 6.10 provides the data.

The program differences are substantial. The Health Occupations field stands out. About 53 percent were employed in the occupation studied and another 15 percent were employed in a highly related field. Thus, a total of 68 percent of the employed Health Occupation graduates were employed in the field for which trained. (Unfortunately, the major cities have been less than responsive to the need for manpower in the health industries field. The small number of graduates represents the paucity of curriculum offerings and enrollments in this field.)

In sharp contrast, there is *Gainful Home Economics* plagued with a large percentage of graduates who claimed their course was not their first choice (34%); a large percentage of graduates who claimed that they did not plan at the time of course selection to work in the field for which trained (24%); the highest percentage of unemployment for all programs (18%); the largest mean time required by graduates to get a job (4.9 weeks); and with the lowest percentage of graduates acknowledging school personnel as a help in getting the first job (18%) -- this problem program had but 22 percent of its graduates employed in the field for which trained. Here, indeed, is a program field that needs a closer look. Gainful Home Economics is a relative newcomer as a vocational field. Only in the last five years have such curricula spread widely. In most cities, such curricula are seen as the answer for the so-called disadvantaged, and the evidence accumulating herein is that, as now operating, Gainful Home Economics curricula are far from being the answer to the vocational needs of any level of student capability.

Business Education shows a relatively high percentage of graduates placed in the field of study -- about fifty-two percent.

Agriculture, with too few cases to draw a final conclusion, also shows a relatively poor placement-into-the-field performance -- about 29 percent. It, too, has been a field into which the academically less capable student has been counseled.

Technical Occupations is somewhat of a surprise. Only 30 percent of those employed entered the field for which trained, and a large 46% entered a field completely unrelated to what was studied in high school. Later, we shall see why.

Trade and Industrial, a cornerstone of vocational education in major cities, also does not show an impressive placement performance. Only 36 percent enter the field for which trained, and a discouraging 45 percent find employment in a completely unrelated occupational field.

At this point, the reader is reminded that we are dealing with a recession economy, and that placement into the field for which trained is always adversely influenced by an economy downturn. Nevertheless, we conclude that there are substantial program differences on this variable, and that these differences would prevail regardless of the economy level.

ANALYSIS BY RACE

How do black and white graduates compare in terms of employment in the field studied? Table 7.10 shows significant race differences. For all graduates combined, about 49 percent of the whites versus 38 percent of the blacks were employed in their occupational field of study. Equivalent percentages for the program areas show a higher percentage of whites than blacks employed in the field of study for all programs. The difference is most pronounced in trade and industrial occupations (43% whites versus 23% blacks employed in occupations related to their field of study). Moreover, 60% of black T&I graduates were employed in occupations completely unrelated to what was studied.

The consistent differences are more than a little disconcerting to those who believe vocational-technical education at the secondary level is an important answer to providing minority groups with saleable occupational skills. The 60% black Trade and Industrial program graduates who were employed in work completely unrelated to the occupation studied, for all practical purposes, entered the labor market without a trained skill. What they learned was not put to use. In a sense, training resources were wasted, newly acquired skills went unused, and many blacks would not reap the dollar benefits that come from staying with a trade and industrial occupation until the equivalent of journeyman status was achieved.

It is interesting that the black-white differences in Gainful Home Economics are the smallest of all programs from the standpoint of employment in the field of study (24% for whites versus 21% for blacks). The small number of cases makes the percentages unreliable, but the result may not be unexpected. These are usually service occupations that are more open to blacks than, say, trade and industrial occupations.

The findings are also a strong argument for the major cities to continue to collect follow-up survey data in terms of racial categories. It is a disservice to the racial minorities to fail to breakout the data by race, and thereby ignore the problem that confronts black and other minority students in vocational programs.

ANALYSIS BY SEX

How do male and female graduates compare in terms of employment in occupations related to their fields of study? Table 7.10 provides data that supports the conclusion that a higher percentage of females than males do find employment in the occupations for which trained or highly related occupations.

Whereas only 33 percent of the males were employed in their field of study, about 51 percent of the females were so employed. The difference is substantial and impressive. At the other extreme, 46 percent of the males were found in occupations completely unrelated to what was studied compared to 23 percent of the females. The same basic difference is apparent in the following programs: Trade and Industrial (33% for males vs. 46% for females), Distributive Education (31% for males vs. 37% for females), Business Education (23% for males vs. 54% for females). Insufficient data prevents a comparison in the other program areas.

II. ADEQUACY OF TRAINING FOR EMPLOYMENT IN FIELD

INTRODUCTION TO THE TOPIC

The survey instrument asked of the graduates employed in their field of study, How well did your high school occupational course prepare you for your present job? The answer categories were excellent, good, fair and poor.

QUESTION RATIONALE

Traditionally, the opinions of vocational administrators and instructors have been used to evaluate the "quality" of vocational education. The students and their employers have been asked but infrequently how they feel about vocational education. In line with past surveys of our own, we never fail to ask those employed in the fields for which trained how well their training prepared them for their work. It is good for the educator's psyche to hear the chorus of approval. It reassures him so he can face with greater bureaucratic stubbornness the criticisms that come his way. We already knew the answer before we posed the question. But we felt we could not deny the Class of '70 their opportunity to pat the heads that taught them. Besides, for those who make it to their chosen field, vocational education was a rewarding experience, a source of feelings of achievement and self-confidence. Enough already.

PRIOR STUDY FINDINGS

After this brief review, the reader will have no trouble predicting what the Class of '70 had to say to the question.

The Process and Product study (2) found that the number of years out of high school had a bearing on the graduate's enthusiasm for his occupational preparation. When asked how well their vocational course had prepared them for their occupation in their field of study, the Class of '53, '58 and '62 answered as follows:

	'53	'58	'62
Exceptionally well prepared	52.9	48.9	49.7
Well prepared on the whole	42.8	46.5	47.4
Poorly prepared	4.3	4.6	2.9

Even after eleven years, and much trial and error on-the-job learning and unlearning, the vocationals employed in their field of study are stout loyalists. And why not. They knew what they wanted, studied to make it, and stayed with it. If they had an identity crisis, they were quick to resolve it.

In the Project Metro Class of '68 survey, the question was, How well did your high school vocational course prepare you for your first job? The answers were as follows: Excellent preparation (35%), well prepared (59%), not well prepared (5%) and poorly prepared (1%). A very solid and respectable endorsement. Moreover, the basic pattern was the same, give or take a few percentage points, for all thirteen major cities.

The Pennsylvania follow-up surveys of '68, '69 and '70 involving a grand total of 51,068 graduates from all program areas in over 600 schools gave very similar results.

Rating of Preparation	'68	'69	'70
Excellent preparation	31%	41%	39%
Good preparation	62	55	55
Fair preparation	6	3	5
Poor preparation	1	1	1

Now, good reader, if you are still with it, how do you think the Project Metro Class of '70 rated their occupational preparation? Let's see.

PRESENT STUDY FINDINGS

ANALYSIS BY COMBINED GRADUATES

The Class of '70 that obtained jobs in the field for which trained had something to be grateful for -- they left school when jobs were hard to find -- and they showed it. Table 4.11 provides the data. About 40 percent said their vocational course preparation was excellent and 55 percent reported it to be good. That's an impressive 95 percent endorsement, and one of the real plusses that go to major city vocational education. Less than 1 percent thought their vocational course preparation was poor. Some cynics will claim that the graduates are being uncritical, not really assessing all the nitty-gritty elements. And of course that's the truth. It is also irrelevant. The graduates were asked to give a general assessment, and they did; it was highly favorable. So let's give vocational education the credit it is due. It turns out a highly loyal product.

ANALYSIS BY INDIVIDUAL CITIES

How do the individual cities compare in terms of how their graduates rate their vocational preparation for employment in their field of study? Table 5.11 shows that there are, indeed, individual city differences. The percentages for "excellent preparation" range from a low of 25% (Seattle) to a high of 50% (Houston). Thirteen of the twenty-two cities had "excellent" percentages above 40 percent. It appears that some students are being critical with faint praise, i.e. they withhold the "excellent" rating. Despite such differences, there is not a city that does not get a resounding endorsement from the small minority of their graduates who found employment in the occupational field studied.[1]

ANALYSIS BY TYPE OF PROGRAM

How do the different program areas compare in terms of how their graduates employed in the field of study rate their high school occupational preparation? Table 6.11 indicates there are significant program differences. The percentages for ratings of excellent range from a low of 30 percent (Distributive Education) to a high of 47 percent (Health). The number of cases for Home Economics is too few to warrant interpretation. When the "excellent" and "good" rating percentages are combined, the range is from 88.9 percent for Agriculture to 100% for Health Occupations. No Health

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[1] A recent Class of '71 Pennsylvania survey asked those not in their field to rate their vocational education. At this writing, the returns are still coming in. We expect the ratings to be favorable.

Occupation graduate employed in his field of training rated his occupational preparation poor or only fair. Health and Business Education stand out in terms of endorsement by graduates employed in their field.

The basic pattern for all programs, however, is one of high level student satisfaction with the quality of their occupational training. These are graduates who are employed in the occupations for which trained. We might expect lower ratings from those who did not want employment in the field for which trained or were not able to get such employment.

ANALYSIS BY RACE

How do black and white graduates employed in their field of study compare in terms of how they rated their high school occupational training? Table 7.11 provides the data.

The data suffers from the relatively small number of blacks, identifiable as such, who found employment in their field. When the data for total graduates is examined, there appears to be little or no difference between the black and white ratings. The blacks rated their vocational education just as highly as the whites. However, when we take a closer look at the data for program areas, blacks from the Trade and Industrial programs rated their occupational preparation lower than did whites. About 47% of the whites rated it excellent versus 31% of the blacks. About 7% of the whites rated their occupational preparation fair or poor versus 22% of the blacks.

In Business Education, the blacks rate their vocational training as highly as do the whites. About 42% of the whites claimed that it was excellent versus 41% of the blacks. About 56% of the whites reported that it was good versus 55% of the blacks.

The presence of substantial black-white differences in Trade and Industrial occupations and the absence of such differences in Business Education would indicate that how blacks and whites rate their vocational training will depend, in part, upon the type of vocational program from which they graduated. Unfortunately, the numbers of black cases in the other program areas are too small to warrant interpretation.

Here is a good point to make a comment about the current thinking going on in the U. S. Office of Education, stimulated by Bureau of Budget influence over what data collection forms and procedures will be approved. There is strong pressure to put follow-up surveys required by the states and cities with a population over 250,000 on a small sampling basis. Presumably, this is to decrease the burden on those who must do the surveys. This is plain nonsense for several reasons: (1) It will permit only the grossest type of data analysis. Special breakdowns that are required to understand certain problem areas will be impossible because there will be insufficient cases to warrant such analyses. Had the present study been based upon the type of sampling advised by the U. S. Office of Education, most of the analyses herein presented would have been impossible for lack of cases. As it is, even some of our analyses had blocks of data that did not warrant interpretation because of insufficient cases. (2) It is more of a problem to sample than to survey the population of graduates. To do the kind of sophisticated stratified random sampling that most experts would recommend, would require a computerized sampling procedure to control the sampling process. The vast majority of school districts have neither the talent, resources nor equipment to sample via computer, and even those that do would be a problem in that the sampling procedure would vary all over the map. (3) The school districts need the follow-up survey data for their own program planning and evaluation use. The output of vocational graduates in most districts is relatively small. It would make no sense to ask districts that turn out vocational graduates in the low hundreds to take an "economical" sample to save a few postage dollars. It is false economy to save some dollars only to end up with follow-up survey data that is uninterpretable because of insufficient cell cases and of questionable value from the standpoint of evaluation.

We write this to head off a decision which will jeopardize the usefulness of follow-up surveys in vocational education. The root of the problem is the Bureau of Budget which has control over Federal data collection forms and procedures via its authority to approve or not approve. That Bureau has neither the manpower nor the knowhow to intelligently exercise its authority in the area of forms approval. The U. S. Office of Education should resist all efforts to push a sampling procedure for vocational education follow-up surveys. Such surveys need to be strengthened, not weakened.

ANALYSIS BY SEX

How do males and females employed in the occupations studied rate their occupational preparation in high school? Table 7.11 indicates a mixed situation.

Based upon all graduates that go into the analysis, a higher percentage of females rated their training excellent or good (97%) than did the males (91%). Even so, the difference of six percent is of no practical significance. The truth lies in the similarity of the data rather than the difference. Both males and females employed in their field of study rate their vocational education highly.

The reader interested in sex differences by program area may wish to study Table 7.11. Most comparisons are handicapped by insufficient data in either the male or female category.

12. REASONS FOR PRESENT JOB NOT BEING IN FIELD OF STUDY

INTRODUCTION TO THE TOPIC

The survey instrument asked of those full-time employed graduates who were not employed in their field of study, What was the main reason for not getting your present job in your field of study? Please mark one answer only. The answer alternatives were as follows:

1. Tried, but could not find job
2. Not accepted into apprentice program
3. Did not feel sufficiently qualified
4. Decided I did not like type of work
5. Found out pay was too low
6. Too little opportunity for advancement
7. Better type job came along first
8. Never really planned to do so
9. Reason other than above

QUESTION RATIONALE

The reason for the question is self-evident. We needed to know why graduates did not enter employment in the field for which trained, and to what extent the reasons given reflected on factors that were controllable to a reasonable degree by the major city school systems. Given the objective to increase the percentage of qualified and interested graduates placed into the field for which trained, it becomes imperative to understand why graduates do not obtain employment in their field of study. Our survey question merely scratches the surface of the problem. Undoubtedly, the reasons are more complex than the simple answer alternatives offered in the sense that combinations of factors probably operate. However, the stress on the main reason should provide some understanding of why so many graduates do not enter the occupations for which trained. The writer, incidentally had an opportunity to discuss the matter of occupationally trained persons rejecting their occupation after completion of studies with a high official in Austria, where occupational education involves the great majority of students. He professed astonishment that there was such a problem, and claimed the problem did not exist in Austria, albeit there would always be a negligible number of individuals who would turn away from what they had studied. Apparently, Austrian youth approach their career education with more serious intentions than do students here.

PRIOR STUDY FINDINGS

The Process and Product study (2) raised the question with Trade and Industrial program graduates from the classes of '53, '58 and '62. The answers reflected the economy level at the time of graduation, although other factors were also operating. The results are indicated below:

Reason Marked	'53	'58	'62
No job available in field	29%	39%	36%
Decided I liked other work	28	25	26
Not accepted as apprentice	12	10	10
Rate of pay too low	4	2	2
Reason other than above	28	24	26

The large percentage marking "Other than above" indicates that the answer alternatives were inadequate. Nevertheless, the data revealed two major problems, i.e. graduates wanting employment in their field of study but not finding a job therein and graduates rejecting employment in the occupation studied because they preferred other types of work. The data for the Class of '58, which entered the labor market in a recession period, shows how the economy level may deflect trained manpower from occupations studied.

The Project Metro Class of '68 survey raised the same question of those whose first job was outside their field of study. The results are not strictly comparable with the earlier Process and Product study findings because of the different types of vocational graduates, the exclusively major city locations in the Project Metro survey, the different answer alternatives, and the instruction to mark all that apply in the later study. The results were as follows for the thirteen major cities combined:

Reason Marked	'58
No job available in field	17%
Not accepted as apprentice	4
Better job came along first	16
Rate of pay was too low	6
Did not like type of work	14
Advised against it by teacher	1
Did not feel qualified	18
Did not know how to find job	6
Other than above	31

The results confirm earlier findings that (1) a large percentage of graduates not employed in their field have a problem finding a job in their field (23%) and (2) a substantial percentage (36%) have for various reasons rejected the idea of employment in the field for which trained. Also, a third problem emerged, namely a significant percentage (18%) felt they were not sufficiently qualified to work in their field of study.

A Class of '68 and '69 follow-up survey (3, 4) conducted in Pennsylvania further confirmed earlier findings, though the graduates came from over 600 secondary schools whose locale ranged from rural to major city. The results are indicated below:

Reason Marked	'68*	'69
Tried, but could not find job	19%	19%
Not accepted as apprentice	2	4
Not sufficiently qualified	12	9
Better job came along first	12	13
Earnings too low in field	5	4
Didn't like type of work	14	12
No advancement opportunity	--	2
Didn't know how to get job	4	--
Never planned to work in field	--	10
Reason other than above	32	27

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*Multiple response permitted.

The one new problem revealed is the percent who claimed they never really planned to work in the field studied when they enrolled in the vocational program.

PRESENT SURVEY FINDINGS

About 55 percent of the Class of '70 vocational graduates were employed outside of their field of study. They were asked to mark the main reason for not getting their present job in their field of study.

ANALYSIS FOR COMBINED GRADUATES

The data for the combined graduates from the twenty-two major city areas is given in Table 4.12. Ranked in order of percentages, the reasons given for not being employed in the field of study are as follows:

Tried, but could not find job	19%
Did not feel sufficiently qualified	14
Did not like the type of work	11
Better job came along first	11
Never planned to work in the field	10
Not accepted as an apprentice	4
Found out that pay was too low	3
Too little advancement opportunity	3
Reason other than above	25

First, it is clear that our answer categories were deficient. About 25 percent were forced to mark "Reason other than above." It is regrettable that we failed to provide for a write-in response, even though past experience indicated that less than a third would complete the write-in. As it stands, we have failed to ferret out all the significant reasons for non-employment in the field for which trained.

The findings once again confirm earlier detected problem areas. About 1 out of 5 reported that they tried but could not find a job. The Class of '70 was confronted with a recession economy. About 22 percent of those available for work were still unemployed at the time of the survey. However, the percentage (19%) is only slightly higher than the equivalent percentage for the Class of '68, indicating that regardless of economy level there is a placement service problem in the major city school systems. All relevant data converges toward a single conclusion: Job placement services for vocational graduates is not a highly organized and effective effort in the major city school systems. The school systems are sitting on their status quos instead of hustling for jobs for their vocational graduates.

The percentage that claimed not being sufficiently qualified (14%) indicates a serious problem. Undoubtedly, more than 14 percent had some doubts about their qualification to enter the field for which trained. We are inclined to believe that the problem is not exclusively at the feeling level. A substantial percentage of the vocational output from major city vocational systems leaves without the minimum required knowledge and skills for employment in their field of training.

The change in motivation is a serious problem. About 22 percent indicated a loss of interest, i.e. did not like the type of work and better job came along first. One would expect that the foregoing percentage would be much lower if the cities had adequate career orientation and information programs that resulted in vocational course selection decisions based upon extensive learning about occupations and self.

We don't know whether the ten percent that reported that they never planned to work in the field are a case of sour grapes or really never had such plans. The percent does correspond with the percentage responding no, they definitely did not plan to work in the occupation studied at the time they entered the vocational course (See Table 4.4). How many of these students kept other students with serious intentions of making a career out of their vocational field of study from obtaining the vocational course of their first choice? We don't know, but someone should be concerned.

About the 6 percent that found out belatedly that earnings were too low or advancement opportunity was low, we can only wonder why so late. Where are the career information programs?

ANALYSIS BY CITY CLASSIFICATION

How do Class I, II and III cities compare in terms of reasons given by graduates for not being employed in the occupational field studied? Table 4.12 provides the data.

The differences between the three classes of cities are negligible. We conclude that size (population) of the city and indirectly size of the school district (enrollment) is unrelated to the problem of large percentages of graduates being unable to or not wanting to take employment in their field of study.

ANALYSIS BY INDIVIDUAL CITY

Are there substantial individual city differences in terms of reasons given by graduates for not being employed in their occupational field of study? Table 5.12 provides the data.

The percentages reporting that they tried, but could find no job ranged from 7 percent (Newark) to 30 percent (Pittsburgh and Rochester). Figure 3.1 shows how these percentages correspond with the percentage found unemployed in each city. The plot of data points indicates a moderate positive relationship between percentage of employables who are unemployed and the percentage who claimed they tried to find jobs but could not. This, in effect, confirms the validity of the latter percentages. We would expect higher percentages of "tried, but could not find job in field of study" where the unemployment rate was higher.

The percentages that reported not feeling sufficiently qualified ranged from a low of 5 percent (Norfolk) to a high of 22 percent (Washington, D. C.).

The percentages reporting that they decided that they did not like the type of work ranged from a low of 6.5 percent (Rochester) to a high of 28 percent (Minneapolis).

The percentages that reported a better job offer came along first ranged from 3 percent (Minneapolis) to 22 percent (Atlanta).

The data is hampered by small numbers of cases. As a consequence, one can't place much confidence in the reliability of percentages with less than ten cases. However, even if one accepts the percentages as reliable estimates of population values, what is impressive is not the differences, but the similarities for most of the cities. The range extremes don't tell the story.

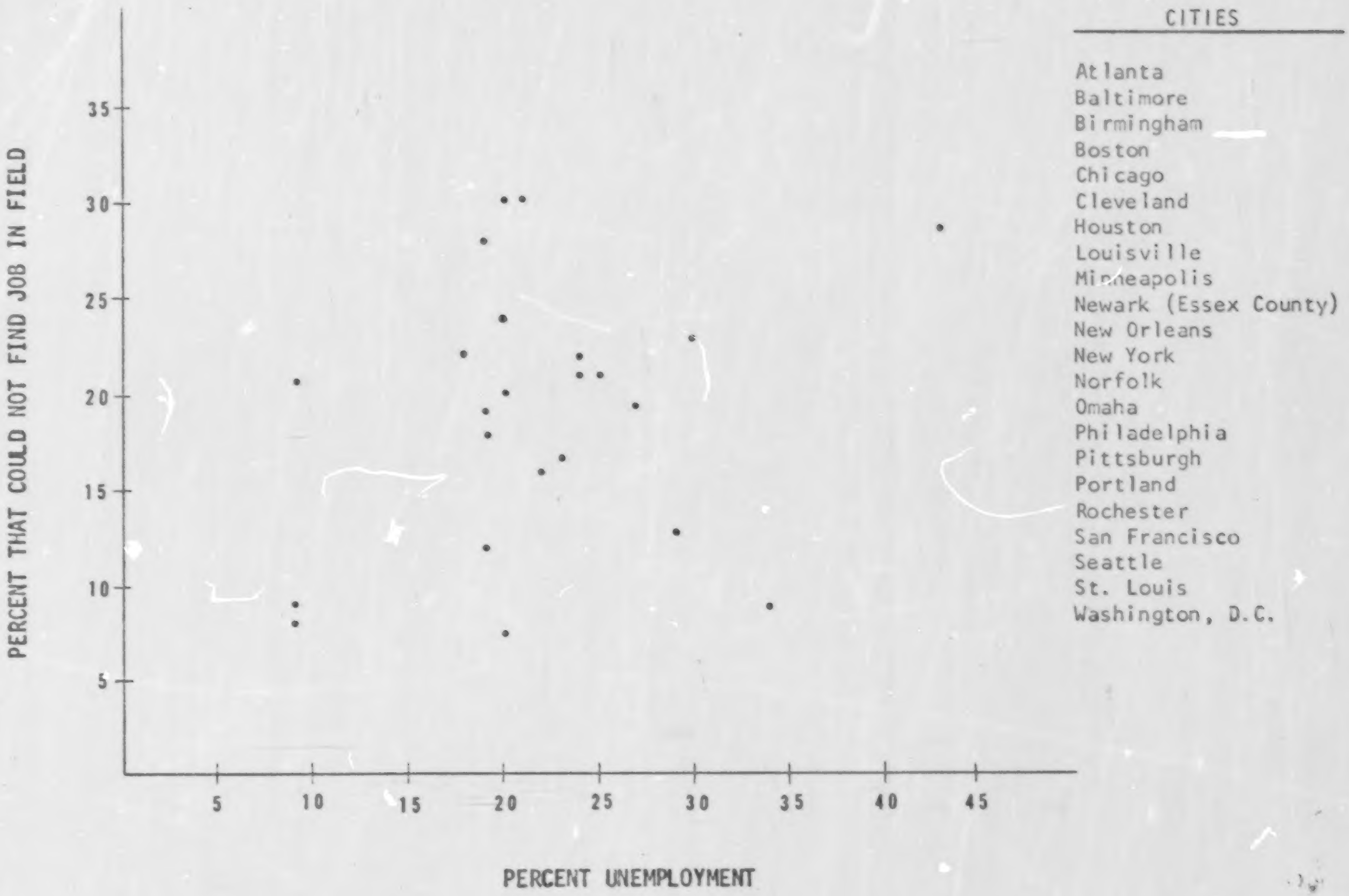

Figure 3.1. RELATIONSHIP BETWEEN GRADUATES REPORTING THEY TRIED BUT COULD NOT FIND EMPLOYMENT IN FIELD AND GRADUATES FOUND UNEMPLOYED IN EACH CITY.

We conclude that while there are significant differences between cities, the more important conclusion is the basic similarity of the data for all cities. The factors that cause or influence graduates to be employed outside of their occupational field of study are more or less the same for all cities.

ANALYSIS BY TYPE OF PROGRAM

How do the basic types of programs compare in terms of the reasons given by graduates for non-employment in their field of study? Table 6.12 provides the data.

The data for Health Occupations, Gainful Home Economics and vocational Agriculture involves too few cases to warrant consideration.

The Technical Occupations program has the highest percentage reporting "not sufficiently" qualified (21%) and unable to find a job (20%). On the favorable side, it has the lowest percentage who never planned to work in their field (1%) and none reporting that earnings were too low. The pattern hangs together from what we know about such occupations. The difficulty level is the highest because of the mathematics and science foundation required. They are occupations where demand drys up quickly in a recession, but earnings are relatively high to start.

The pattern for Distributive Education is quite different. Only 14 percent reported they tried, but could not find a job. Only 9 percent did not feel sufficiently qualified. The knowledge and skill achievement difficulties are much less than in the Technical Occupations. The highest percent (8%) reported that they did not enter the field because of low earnings. And, indeed, earnings tend to be low in this field.

We conclude that significant program differences on this variable do exist, but that more cases and better question design are needed to bring out more conclusively the program differences.

ANALYSIS BY RACE

How do black and white graduates compare in terms of reasons given for not getting their present job in the field for which employed? Are more blacks being rejected as apprentices? Are more reporting that they are insufficiently qualified to work in their field of study? Table 7.12 provides the data. The data for the Health and Gainful Home Economics involves too few cases to warrant consideration.

Look at the data for the total graduates. It is clear that the black-white differences are much less impressive than the differences for both races between the answer categories. Indeed, there are no really substantial black-white differences. About 18 percent of the whites reported that they tried, but could not find a job in their field versus 22 percent of the blacks. One can't make much of a mere four percent difference, other than to say that a true difference probably exists. A higher percentage of blacks than whites reported that they were not accepted as apprentices (6 vs. 3%). A higher percentage of whites reported that they never planned to work in the field (11 vs. 7%). A higher percentage of blacks reported that they did not feel sufficiently qualified (15 vs. 13%). The differences in the other factors are so negligible that they don't warrant comment. We conclude that there are no black-white differences revealed in the present data, other than the greater difficulty that blacks have in finding jobs, that accounts for the lower percentage of blacks who find employment in the field for which trained. We also feel that the lack of substantial differences, i.e. not sufficiently qualified, did not like the type of work, earnings too low, no advancement opportunity, etc. refutes claims made that blacks are less likely to get a job in their occupational field of study because of insufficient qualifications, lack of interest, unrealistic earnings and advancement expectations, and lack of serious intent from the start. If such claims had any validity, they would be reflected by the data.

ANALYSIS BY SEX

How do male and female graduates compare in terms of reasons given for not being employed in the occupational field of study? Table 7.12 provides the data.

Except for a hint that females are more fickle than males, a fact well documented in the world's fictional literature, there are not impressive male-female differences. The finding that fewer females report non-acceptance as an apprentice is an artifact attributable to the much fewer apprenticeable occupations open to females. Women's Lib will find no cause for jousting in Table 7.1 data.

13. HOURLY EARNINGS ON PRESENT FULL-TIME JOB

INTRODUCTION TO THE TOPIC

Those who reported full-time employment and no college or school attendance were asked, What is your present hourly pay rate? If not on an hourly rate, record your salary per month. (The latter were converted to hourly equivalents via computer.)

QUESTION RATIONALE

The hourly earnings of vocational graduates for the first year after high school is useful information for many purposes. For one, it permits earnings comparisons for such sub-groups as graduates from different program areas, graduates employed in and out of the field of study, graduates from vocational and non-vocational programs, graduates in different race and sex classifications, and so on. Such comparisons are essential to fully understand other relevant data. For example, many graduates reject employment into the field for which trained because of claimed low earnings. This immediately raises questions about the earnings. A second general reason for obtaining such data pertains to the development of earnings tables for use by researchers concerned with cost-benefits and the economic payoff for different kinds of vocational education programs. The present study will do no such analyses, but the data will be available for others to further analyze. A third general reason is that the school systems need to know. Such data is part of the occupational information that students need before they make their vocational course choice. Earnings data published by governmental agencies is misleading because entry-level hourly rates are not reflected, with the result that there is a disillusioning discrepancy between what is expected and what is offered the vocational graduate.

PRIOR STUDY FINDINGS

The Process and Product study (2) found that vocationals employed in their field of study earned significantly more than vocationals employed out of their field of study; Class of '53: $3.22 vs. $2.89, Class of '58: $2.60 vs. $2.39, and Class of '62: $2.05 vs. $1.95. As the years go by, the earnings differential increases. The study also found that vocationals employed in their field of study earned significantly more than academic and general program graduates who had not completed college.

The Project Metro Class of '68 follow-up survey (9) found (1) substantial mean hourly rate differences between cities, (2) no impressive hourly rate difference between black and white graduates in the same field for all cities combined, but significant differences in some cities, (3) no impressive overall hourly rate differences between those employed in and out of their field of study, but again sharp differences in both directions in some cities and (4) no impressive differences between vocational and non-vocational graduates employed full-time. Some of these findings failed to confirm earlier Process and Product study findings.

The Pennsylvania Class of '68 survey (3) found (1) no impressive hourly rate difference between graduates in and out of the field for which trained for their first full-time job ($1.88 vs. $1.91) and for their present job, about 15-18 months after high school ($2.30 vs. $2.33) and (2) substantial mean hourly rate differences between the basic vocational education fields.

The Pennsylvania Class of '69 survey (4) confirmed Class of '68 findings. The mean hourly rate for those employed in their field of training, three to six months after graduation, was $2.54 versus $2.55 for those out of their field of training.

The Pennsylvania Class of '70 survey (5) further confirmed these findings. The mean hourly rate for those employed in their field of study, three to six months after graduation, was $2.22 versus $2.23 for those employed out of the field of study.

These findings appear to contradict those of the Process and Product study (1,2) in which it was shown that vocationals in their field of study earn more than those out of their field of study. There is no contradiction. The Process and Product study compared earnings two, six and eleven years after graduation, for trade and industrial occupation graduates. The Pennsylvania studies compared earnings from three to six months after graduation.

Those who stay in the field for which trained pull ahead in earning after several years as they approach the journeyman or equivalent status for their occupation. In many trade and industrial occupations, hourly earnings are traditionally relatively low to start because of the apprenticeship status that characterizes those who enter the occupation. It may take as long as five years to reach peak hourly earnings in, for example, the construction trades. Researchers who attempt to do cost-benefit studies comparing vocational and non-vocational graduates must take into account the earnings over the range of years that each group requires to reach peak earnings. Short term comparisons show the vocationals at a disadvantage, and result in erroneous conclusions.

PRESENT SURVEY FINDINGS

ANALYSIS FOR ALL GRADUATES COMBINED

Table 4.13 shows how the combined full-time employed earned a mean $2.35 on their present job, from three to six months after graduation. That's about $376 per month or $4512 per year. About 27% reported present job earnings of less than two dollars per hour while 30% had earnings of $2.50 or higher. The reader is reminded, however, that these are probably over-estimates of the population parameters because of non-respondent bias that can't be assessed.

ANALYSIS BY CITY CLASSIFICATION

Table 4.13 also shows the hourly earnings data for the three city classifications. A definite trend is indicated. The mean hourly earnings range from $2.30 per hour in the Class III cities (250,000-499,000) through $2.32 for Class II cities (500,000-999,000) to $2.45 for Class I cities (1,000,000 or above). Notice also that the percentages for the two lowest class intervals ($1.00-$1.99) show a confirming trend of lower earnings in the smaller cities. Those earning less than two dollars per hour are 23, 27 and 34 percent respectively in Class I, II and III cities. The data again emphasizes the need for local earnings information when such data is to be used in provocational occupational information programs.

ANALYSIS BY INDIVIDUAL CITY

How do the individual cities compare in terms of hourly earnings reported by the full-time employed Class of '70 vocational graduates? Table 5.13 shows the data. Keep in mind, however, that the data represents a composite of all kinds of vocational programs and curricula. The city differences may be a reflection of the product mix rather than local differences in earnings for the same occupations.

The mean hourly earnings for all cities combined is $2.35. The individual city mean hourly earnings range from a low of $1.92 per hour (Norfolk) to a high of $2.66 per hour (New York). The range is considerable, and the city differences are undoubtedly statistically significant. However, the data can't be used to claim individual city differences for starting hourly rates for a given occupation, even though that is very likely to be the case. Pay rates in the very large cities of the North are higher than for the equivalent cities of the South.

ANALYSIS BY TYPE PROGRAM

How do the basic types of programs compare in terms of the hourly earnings reported by their graduates? Table 6.13 indicates the mean hourly earnings range from a low of $1.97 for gainful home economics to a high of $2.69 for health occupations. Distributive education and business education are respectively $2.21 and $2.24, while trade and industrial, technical and agriculture occupations are $2.50, $2.47 and $2.49 respectively.

We must emphasize that the mean hourly rates are for all graduates out of the programs indicated, both in and out of their field of training. This data can't be interpreted as what the average earnings are for those employed in the occupations represented by the program fields. Such data will be presented later. Of what value, then, is the data? We believe the data is a better guide as to what graduates from different programs may expect on an average whether or not they are employed in the field for which trained.

ANALYSIS BY RACE

How do black and white graduates compare in terms of mean hourly earnings for all programs combined and within each of the basic program fields? Table 7.13 provides the data. The reader is cautioned that the data does not represent a comparison of black and white earnings based upon an equal match of the specific occupations in which the graduates are employed. The blacks and whites are grouped according to the program field from which they graduated. Some entered the field for which trained (49% of whites vs. 38% of blacks) and others were employed in occupations outside of the field for which trained (51% of whites vs. 62% of blacks). Hence, the mean hourly earnings reflect the probable earnings for graduates from the program fields indicated, without taking into account the specific occupations entered or whether the occupations are in or out of the field studied. With these limitations on the data, our conclusions about black and white hourly earnings should be regarded as tentative until a more controlled analysis can be applied.

For black and white graduates combined, the mean hourly earnings were respectively $2.36 and $2.30 for black and white graduates. We conclude there is no significant difference between black and white hourly earnings for the combined graduates. The differences within the program fields do not warrant interpretation in the home economics and health programs because of the relatively small number of cases. There is a substantial difference in the technical program area that favors the white graduates, i.e. $2.56 per hour for whites versus $2.25 per hour for blacks. The differences in hourly earnings in Distributive Education and Business Education favors the black graduates by approximately ten cents per hour. So, we have a mixed situation. The data does not support the widely held belief that black graduates are paid less than white graduates. That may be so for specific occupations or occupational fields, but not when the two groups are compared irrespective of the occupations in which employed. The blacks have greater difficulty finding jobs, particularly jobs in the fields for which trained, but when they do get jobs their earnings are on par with the white vocational graduates.

ANALYSIS BY SEX

How do male and female graduates compare in terms of mean hourly earnings, when classified according to the type of program field from which graduated and when combined irrespective of program field? Table 7.13 provides the data.

Again, we must emphasize that the comparative data is classified, not by the types of occupations in which presently employed, but by the program field out of which the male and female graduates came. The data reflects substantial sex differences. For all graduates combined, the male and female hourly earnings were respectively $2.60 and $2.20 per hour. The twenty cents per hour difference comes to about $416 annually.

The insufficient number of cases in either one or the other of the sex categories invalidate the comparative data for the technical, health and gainful home economics programs. In all other programs, the earnings differences favor the males, i.e. $2.65 vs. $2.03 for trade and industrial, $2.50 vs. $2.07 for distributive education, and $2.51 vs. $2.21 for business education.

The data is no argument that females are being discriminated against because the mean hourly earnings reflect differences in occupations as well as sex differences. The nature of the data collected makes it impossible to compare the sexes in the _same_ occupations. All we can conclude is that male vocational graduates, irrespective of the occupations in which employed, earn substantially more than do female vocational graduates. That's hardly a new finding, but it does give caution to the so-called cost-benefit researcher that sex be controlled as an independent variable.

ANALYSIS BY TYPE OF GRADUATE

How do academic, general and vocational graduates, who are full-time employed and not attending college or school, compare in terms of hourly earnings? This type of data is of particular interest to the vocational educators and the cost-benefit analysts. Again, a word of caution. The data does _not_ control for differences in sex and race ratios which conceivably could affect hourly earnings. Hence, the conclusion drawn can only be regarded as tentative until a more correct analysis has been applied.

The mean hourly earnings of the academic, general and vocational graduates is respectively $2.29, $2.31 and $2.35. Despite the hint of a trend, the differences are negligible. However, a clear trend is established for the Class I city comparative data. The hourly earnings for the same three groups respectively are $2.18, $2.36 and $2.45 with a $.27 differential between academic and vocational graduates. A confirming trend appears in the Class III cities. The hourly earnings are $2.07, $2.26 and $2.30 respectively for the academic, general and vocational graduates. No significant differences are indicated for the Class II cities.

We conclude that the vocationals have significantly greater hourly earnings than the non-vocationals in Class I and Class III cities, but not in Class II cities. But, such comparisons are of no great value. The truth is that whether vocationals earn more, less or about the same as either general or academic program graduates depend upon (1) whether or not the vocational enters the field for which trained, (2) the specific occupation held by the vocational and (3) a host of variables like race, sex and geographical location. It is this complexity which illustrates the difficulty of meaningful cost-benefit studies. Vocational education covers, if we accept the U.S.O.E. codes, about 600 generic occupational titles that reflect occupations ranging from almost semi-skilled to highly technical occupations, e.g. from custodial services to computer programmer. Clearly, the results of a academic-general-vocational hourly earnings depend upon the kind of occupation for which the vocational was trained and whether he now is employed in the occupation for which trained.

The comparison has largely a propaganda value of the pro or anti-vocational education groups, depending upon the nature of the outcome, particularly where we are dealing with earnings at the start of careers. It would be more useful if it covered the first five or ten years of employment as was the case in the Process and Product (2) study.

ANALYSIS BY RELATEDNESS OF EMPLOYMENT

How do graduates employed in and out of their field of training compare in terms of their hourly earnings? The question bears on the broader question of whether vocational graduates who enter the occupations for which trained are better off than those who obtain employment, for various reasons, out of their field of study. Table 9.13 provides the data.

The differences are small, but consistently in favor of the graduates employed in their field of study. For males, the hourly earnings are $2.62 for the ins versus $2.59 for the outs. For females, they are $2.23 for the ins versus $2.16 for the outs.

The differences are more pronounced for the black graduates. Black males employed in their field of study earned $2.66 per hour versus $2.45 for those employed out of their field. Black females employed in their field earned $2.36 versus $2.23 for those not in their field.

We conclude that those employed in their field of study have a relatively small initial earnings advantage over those who are employed out of their field. However, these differences do not tell the complete story. Our prior study (2) showed that earnings increase more rapidly over the first five years for those in the field than those out of the field. Our present study has no data for the longer period of time needed to show the substantial earnings advantage that graduates in their field of study have over those out of their field.

14. RELATION OF PRESENT STUDIES TO VOCATIONAL EDUCATION

INTRODUCTION TO THE TOPIC

The graduates who indicated that they were presently attending college or school were asked, Are your present studies or planned college major related to your high school vocational course? Answer Yes or No.

QUESTION RATIONALE

The trend is for an increasing percentage of vocational program graduates to continue some type of post-high school education. About 30.5 percent of the Class of '70 reported attending college and 7.2 percent reported attending a non-college school. As this trend continues, questions will be raised about the use of relatively costly vocational education programs as a "college preparatory" program. In other words, why a vocational program if they are headed for college? As long as the percentage going to college is in the range of say 20 to 30 percent, the question is not likely to come about. Indeed, it will be a plus for vocational education and certainly enhance the general public image of vocational education to be able to show that an increasing percentage do go to college or some other post-secondary type of education. It is evidence that students have not lost an option for higher education when they elect a vocational education program. But, at some point, the question will be raised about the vocational education as a costly stepping stone to higher education.

With those thoughts in mind, we became interested in the relationship between vocational courses taken and present studies being pursued in college or non-college schools. A strong relationship would be evidence that students strengthened their interest in a career field through their vocational education studies and elected to develop their capabilities to a higher level. Thus, for example, the student of electronics, having a better grasp of his interests and abilities as a result of his successful completion of a high school electronics curriculum might elect to study electrical engineering in a four year college or electronics technology in a two year community college.

Our single questionnaire item merely intended to open the door of this issue. More intensive research into the post-high school education careers of vocational graduates is needed.

PRIOR STUDY FINDINGS

A Pennsylvania Class of '68 survey asked vocationals who were attending college or non-college schools to indicate how related their post-high school studies were to the occupation studied in high school. The question applied to about 1300 cases who were attending some type of post-high school institution for further education or training. About 23% indicated that their studies were a continuation of the same occupation, 25% reported them to be in a highly related occupational field, 19% said their studies were slightly related to their high school vocational course, and 32% indicated that they were headed for an entirely different occupational field. The data analysis did not differentiate returns by college and non-college institutions. It is highly likely that those who go on to college would report a different relationship between high school and college studies than those who went on to non-college schools. Nevertheless, even with this restriction on the data, it is clear that for almost half of the graduates there is a strong continuity between what is studied in high school and what is studied in post-high school education.

PRESENT SURVEY FINDINGS

ANALYSIS BY COMBINED GRADUATES

Are your present studies or planned college major related to your high school vocational course? Table 4.14 provides the data. About 58% of the 5544 graduates attending colleges or non-college schools reported affirmatively. We conclude that there is a strong relationship between what students study in high school vocational courses and what they study later in college or non-college schools.

ANALYSIS BY CITY CLASSIFICATION

How do the Class I, II and III cities compare in terms of percent of college or school attenders who report present studies are related to high school vocational courses? Table 4.14 shows no impressive difference between the three city classifications. The strong continuity between high school vocational majors and what is studied post-high school is established equally for all classes of cities.

ANALYSIS BY INDIVIDUAL CITIES

Are there substantial individual differences among the twenty-two major cities in the relationship between what vocational students studied in high school and their studies in college and other post-secondary schools? Table 5.14 indicates the differences are impressive. They range from a low of 41 percent (Chicago) to a high of 71 percent (Norfolk). These differences are probably attributable to the vocational curricula mix of the graduates who go on to post-secondary education and how well that mix corresponds to the local opportunities to pursue related work in post-secondary institutions. Obviously, there is more opportunity for pursuing related post-secondary education in some cities than in others. We emphasize local opportunity for pursuing related post-secondary education because 81.1 percent of those attending colleges and other post-secondary institutions are doing so in the same city in which they went to high school. (Table 5.16.3).

ANALYSIS BY TYPE OF PROGRAM

How do the basic types of programs compare in terms of the relatedness of post-secondary education to secondary vocational courses for those who went on to higher education? Table 6.14 indicates some interesting program differences. Two programs stand out -- Technical and Health Occupations. A very high percentage of the graduates from these programs who continue on to post-secondary education are involved in related studies, i.e. for Health, 82 percent and for Technical, 79 percent. At the other extreme, a slight majority of those from Distributive Education and Gainful Home Economics go on to post-secondary studies which are unrelated to their high school vocational education.

It is also interesting that the Technical and Health Occupation programs have respectively 46 percent and 57 percent of all graduates continuing on to some form of post-secondary education. For Technical Occupations, it's 33% to full-time college attendance. For Health Occupations, it's 46% full-time college attendance. Very clearly, these two program areas are highly college preparatory in nature, with almost 80 percent of those who continue to post-secondary education continuing in a field related to their high school vocational course. These programs are whetting appetites for higher and/or more education. Counselors should take note of the potential college student in these programs.

ANALYSIS BY RACE

How do black and white students who go on to post-secondary education compare in terms of the relatedness of post-secondary education to their secondary vocational education? Table 7.14 shows, for all blacks and whites combined, no difference of any practical significance. Blacks are just as likely to pursue a related field in college as are whites. There are some program differences however. A greater percentage of the whites than blacks out of Trade and Industrial, Technical and Gainful Home Economics Occupations continue in a related field in college, and other post-secondary institutions. We have no explanation to offer. The reverse is so for the Business Education program. More blacks than whites continue their post-secondary education in a related field. The answer may be that those institutions that permit continuation in a related field are more accessible to blacks from Business Education than to blacks from the other program areas.

The major conclusion has to do with the data similarity rather than the differences. When black and white vocational graduates go on into higher education, the majority of both races continues in a field related to what was studied in high school.

ANALYSIS BY SEX

How do male and female graduates who go on to post-secondary education compare in terms of the relationship between high school vocational program and what is studied in college and other post-secondary schools? Table 7.14 indicates no significant difference when males and females from all programs are combined. About 59 percent of the males reported their studies were related to their high school vocational course versus 57 percent of the females.

However, there are distinct within program differences. For the Trade and Industry program, 59 percent and 43 percent of the males and females respectively claimed their studies were related to their vocational program in high school. Equivalent percentages for Technical Occupation males and females are 80 percent and 60 percent respectively. For Distributive Education males and females, the percentages are 56 percent and 45 percent respectively. Only in Gainful Home Economics is there a reversal of the pattern, 33 percent vs. 52 percent, indicating that more females than males continue their post-secondary education in a related field.

We conclude that males show greater continuity between high school and post-high school studies in all but Business Education and Gainful Home Economics. The girls are more likely to jump the fence to another vocational field.

15. DISCUSSION OF EDUCATION PLANS WITH COUNSELORS

INTRODUCTION TO THE TOPIC

The survey questionnaire asked those presently attending college or school, Did you discuss your college or school plans with your high school counselor? Answer Yes or No.

QUESTION RATIONALE

Counselors, so the story goes, devote more of their attention to the academic program students who are presumably college bound. We wanted to know if vocational graduates-to-be discussed their plans for post-secondary education or training with their counselors. So we asked the question.

PRIOR STUDY FINDINGS

The Metro I Class of '68 follow-up survey asked the vocational graduates to indicate *about how many times they had* a personal conference with a counselor in high school -- for any reason. About 13 percent claimed they never had a personal conference with a counselor in all four years of high school. Another 37 percent reported one or two such conferences. About 23 percent reported 3 to 4 such conferences. Another 12 percent replied 5 to 6 personal conferences. Lastly, 15 percent reported more than 6 conferences. These findings did not support the concept of a close relationship between counselors and vocational students.

PRESENT SURVEY FINDINGS

ANALYSIS FOR COMBINED GRADUATES

Those who reported attending college or school, either part-time or full-time, were asked if they had discussed their college or school plans with their high school counselor. Table 4.15 indicates that 60 percent reported affirmative. That's good; at least a personal contact was made. But, 40 percent going to college or other non-college schools without discussing their plans with a counselor seems high. On the other hand, perhaps these graduates simply did not feel the need for counseling.

ANALYSIS BY CITY CLASSIFICATION

Table 4.15 also gives the data by city classification. The affirmative percentages were 60, 60 and 63 percent respectively for Class I, II and III cities. We conclude that counselor visitations to discuss post-school education plans are unrelated to size (population) of the city and indirectly the size (enrollment) of the school districts.

ANALYSIS BY INDIVIDUAL CITIES

How do the individual cities compare in terms of percentage of graduates reporting discussion of post-high school educational plans with counselors?

Table 5.15 indicates a range of affirmative percentages from 50 percent (San Francisco) to 76 percent (Rochester). Fourteen cities yielded percentages in the fifties, six showed percentages in the sixties, and three came through with percentages in the seventies. We conclude that they are significant individual city differences. Perhaps the more important point is that, in all cities the majority of graduates now in college or school reported discussions with counselors.

ANALYSIS BY TYPE OF PROGRAM

How do the basic programs compare in terms of their graduates in college or school reporting contacts with counselors to discuss education after high school? Table 6.15 reveals that the two programs that send the highest percentage of their graduates to college, and have the highest percentage of graduates continue higher education in a field related to their vocational studies, namely Technical and Health Occupation programs, also have the highest percentage of graduates (71% and 75% respectively) reporting discussion of education plans with counselors. Technically, we can't infer a causal relationship but we prefer to give the much maligned counselors the benefit of the doubt. They do like to counsel young people into college, and the three way relationship pointed out indicates counselors may be useful resources to vocational students who are interested in further education.

ANALYSIS BY RACE

Table 7.15 indicates that, overall, the black graduates reported discussing their college or school plans with counselors more than the white graduates (63 vs. 58%). There is no black-white difference of any significance among the Trade and Industrial, Technical, Distributive Education, and Health program graduates. There are substantial differences among the Business Education graduates (63% for blacks versus 51% for whites) and Home Economics graduates (63% for blacks and 43% for whites).

We conclude that there is a race difference in terms of counselor contacts about higher education in two of the six program areas only, Business Education and Gainful Home Economics.

ANALYSIS BY SEX

Table 7.15 indicates small sex differences in all but one program area, indicating that males discuss their college or school plans with counselors in greater percentages than do females. The exception is the Health Occupation program, which is predominantly a female enrollment program. We conclude that the differences are too small for any practical implications.

16. PRESENT RESIDENCE OF CLASS OF '70 GRADUATES

INTRODUCTION TO THE TOPIC

The survey questionnaire asked of all graduates, Where are you now located? (In residence). The response alternatives were • city in which I went to high school • same state, but different city and • different state.

QUESTION RATIONALE

The manpower conversion equation states that there should be a balance between the kinds and numbers of skilled manpower developed and the kinds and numbers of skilled manpower required. The question is, what defines the labor market served by the major city school systems? One must first define the labor market before one can assess the labor market requirements. There is strong reason to believe that the labor market served by a major city is not the nation, region or even state, but the city itself and the city environs, to the extent that commuter services are available.

The question was asked to establish the residence of the vocational graduates at the time of the survey. Based upon prior data, we feel confident that the answer categories would serve to define the labor market about which each major city should be concerned in terms of manpower requirements, curriculum planning, placement services and so on.

PRIOR STUDY FINDINGS

One of the many American myths that has been exaggerated far and beyond the facts concerns geographic mobility of people. Sunday newspaper magazines and other general circulation magazines periodically run articles that get carried away with Department of Labor data on population movement and, of course, census data. Are we such a highly geographically mobile society? The answer depends upon who we are talking about. If we are talking about secondary school vocational program graduates, the answer is negative. Let's look at the data.

The Process and Product study (1) asked the Class of '53, '58 and '62 vocational graduates how many new city residential moves they had made between graduation and the time of the survey, 1964. For these three classes respectively, the percentage that reported no moves was 73, 78 and 86 percent. Now, these percentages are not wholly unbiased estimates of the population parameters. Mail addressed to the graduates came back marked " Address Incorrect" or "No Forwarding Address" for respectively 40, 30 and 13 percent of the Class of '53, '58 and '62 graduates. Perhaps, these were all the geographically mobile graduates. Notice, however, that only 13 percent of the Class of '62 mailings were so returned after two years. A ten percent random sample of the so-called "Address Unknowns" was selected for intensive search, find, and interview procedure. A mathematical formula was applied to correct the original data for possible "Address Unknown" bias. A significance of difference test was applied to the difference between the uncorrected and corrected population parameter estimates for each of the three graduating classes. None of the differences proved to be significant at or beyond the .05 percent level of confidence. We concluded that the data from the "Address Unknowns" and the "Non-Respondents", when added to the original data, did not alter the conclusion, namely there was very little geographic mobility among vocational students during the first few years after high school. Such young people have neither the economic, psychological or experiential resources to take upon themselves a move to a new city or state in search of a job. When such moves do occur, they are usually because the family has made a decision for moving.

The Project Metro Class of '68 survey asked, *Did your first job require a residence change to another city?* About 98.5 percent replied No. Again, a random sample of the "Address Unknown" and "Non-Respondent" cases was selected for search, find and interview. About 40 percent were located. Most of these were located in the same city in which they went to school. There is virtually no major city out-migration by vocational graduates during the first few years after high school.

A Pennsylvania survey applied to the Class of '68 and '69 from over 600 high schools in the state found 79.4 percent of the '68 graduates and 80.3 percent of the '69 graduates were in the same city where they attended high school. The greater indication of geographic mobility in these surveys is attributable to the large number of rural and small-town high school locations in Pennsylvania. The largest percentage of movement was in the central Appalachian regions of Pennsylvania where lack of job opportunity literally forced graduates elsewhere to seek employment. Even here, however, 73 percent were where they went to high school and only 5 percent left the state.

The vocational education administrator will do well to pay attention to these kinds of data. They define the labor market that his schools serve, namely the city and the commuting environs in which his schools are located.

PRESENT SURVEY FINDINGS

ANALYSIS FOR COMBINED GRADUATES

Table 4.16 provides the data for all vocational graduates, for vocational graduates presently employed full-time and for vocational graduates attending college or school.

No matter how you look at the data, you must come to the same conclusion. The overwhelming majority of vocational graduates remain in the same city where they went to high school. Analyzed for all vocational graduates, 88 percent reported their location in the same city, and 8 percent were in a different city in the same state. That would seem like considerable mobility, but it is attributable to students attending school away from home. Analyzed in terms of students attending college or school, either part-time or full-time, 81 percent were located in the same city, with 13 percent located in a different city in the same state, and the balance (6%) out of state. Since our primary concern is with those who enter the world of work, the third analysis is based upon graduates who are employed full-time. Of these, 95 percent were located in the city in which they went to high school, 4 percent were located in a different city in the same state, and a mere one percent had relocated to another state. The low rate of "Address Unknown" cases in most cities (See Table 2.5), largely attributable to incomplete addresses on the computer tapes provided by some cities, suggests that the percentages cited above would change but little if all graduates had returned questionnaires.

All evidence points to the conclusion that the functional labor market served by major city vocational education is the major city itself. It does not seem an impossible task to ask those responsible for vocational education to understand more fully the relevant economic characteristics of the cities they serve and to establish a dialogue with the employer community therein.

ANALYSIS BY CITY CLASSIFICATION

How do Class I, II and III cities compare in terms of geographic mobility evidenced by their vocational graduates? Table 4.16 provides the data. All tables that follow are based upon analyses of vocational graduates who are employed full-time and not attending college or school.

There is the barest hint of a trend for more out-migration from the smaller class of cities. The percentages of graduates located in the same city as in which they went to high school is 95.7, 94.3 and 93.5 percent respectively for Class I, II and III cities. Equivalent percentages for relocation out of state are .8, 1.3 and 2.0 percent respectively. No conclusion of any practical value can be drawn from such data.

ANALYSIS BY INDIVIDUAL CITY

To what extent are there significant individual differences among the cities in terms of mobility of vocational graduates? Table 5.16 provides the data. The percentages remaining in the high school city range from a low of 77% (Atlanta) to a high of 99% (Louisville). All but four of the 22 cities (Essex County is excluded) show percentages in the nineties. Thus, while there are some cities that deviate from the major pattern, for practical purposes of defining their labor market, the results are the same for one and all.

ANALYSIS BY TYPE PROGRAM

How do the basic program areas compare in terms of the mobility of their vocational graduates? Table 6.16 suggests slight program differences, although none changes the basic picture. Maximum movement out of the high school city is by Technical program graduates (12%). The least movement out is by those from the Gainful Home Economics program (2%). Both extremes are understandable. Technical programs tend to draw mor capable students, whereas Gainful Home Economics draws heavily from those less capable academically and is oriented toward occupations that abound in the city, e.g. waitress, short-order cook, meatcutter, etc.

ANALYSIS BY RACE

How do blacks and whites compare in terms of geographic mobility? Table 7.16-A suggests overall there is no significant difference. Of the blacks, 95.7 percent remained in the high school city versus 95.9 percent for the whites. Such small percentage differences as exist between blacks and whites in the different program areas do not warrant drawing a conclusion other than no significant difference.

ANALYSIS BY SEX

How do males and females compare in terms of geographic mobility? Table 7.16-B shows the females, as one might expect, to be less mobile, but the difference is barely a hint in the data. For all practical purposes, there is no sex difference on this variable.

* * * * * * * *

We don't wish to leave the reader with the conclusion that many graduates will not eventually move out of the city. With age, experience and more resourcefulness, many will leave the cities where they went to school. This will be particularly so for those who complete a higher education. The major point that we wish to emphasize is that the critical first year or two after high school is spent in the city where the graduates went to school. That is the labor market toward which the vocational educator must address himself. Amongst other things, he should "know" -- really, his computer should -- every employer who hires into the occupations for which he trains his output. Excepting possibly, Louisville, none of the Project Metro cities can make such a claim.

17. ANALYSIS OF RELATIONSHIPS BETWEEN SURVEY ITEMS

The preceding sections discussed analyses of the basic data in terms of a planned set of independent variables, i.e. city size, individual city, type of vocational program, and others. The present section concerns possible relationships between questionnaire items that may add to our understanding of the relationships between vocational education process variables and between such process variables and selected vocational outcomes experienced by the graduates after leaving high school. An example of the former would be the relationship between course choice and plans to work in the occupational field studied. An example of the latter would be plans to work in the occupational field studied and the present status of vocational graduates.

Where relationships are demonstrated, the reader is cautioned against drawing cause-effect conclusions. At the best, where there is a strong rational basis for drawing such conclusions, the conclusion should be regarded as tentative, and awaiting confirmation by other researchers via techniques that are more appropriate to cause-effect interpretations.

Each table in the present section is discussed briefly in a commentary at the bottom of the table.

TABLE 3.6. RELATION BETWEEN ORDER OF CHOICE FOR VOCATIONAL COURSE TAKEN AND SOURCES OF INFLUENCE ON VOCATIONAL COURSE SELECTION.

WHO INFLUENCED YOUR VOCATIONAL COURSE CHOICE THE MOST	ORDER OF VOCATIONAL COURSE CHOICE (ALL GRADUATES)								
	FIRST CHOICE		SECOND CHOICE		THIRD CHOICE		NO CHOICE		TOTAL CASES
	N	%	N	%	N	%	N	%	N
GUIDANCE COUNSELOR	1403	13.2	334	23.2	103	26.2	186	19.1	2026
VOCATIONAL TEACHER	1472	13.9	169	11.8	59	15.0	98	10.1	1798
OTHER SCHOOL PERSONNEL	482	4.6	84	5.8	27	6.9	64	6.6	657
PARENTS.	2977	28.1	318	22.1	78	19.8	182	18.7	3555
BROTHER/SISTER	781	7.4	70	4.9	16	4.1	41	4.2	908
RELATIVE/FAMILY FRIEND	980	9.2	126	8.8	19	4.8	73	7.5	1198
FRIENDS YOUR AGE	1549	14.6	216	15.0	54	13.7	123	12.7	1942
OTHER THAN ABOVE	941	8.9	119	8.3	37	9.4	204	21.0	1301
TOTAL	10585	100.0	1436	100.0	393	100.0	971	100.0	13385

COMMENTARY. Table 3.6 shows the percentage of graduates in each course choice category who acknowledged the listed sources of influence on vocational course choice. Whereas 13 percent of those who got their first choice reported the counselor the most important influence, respectively 23, 26 and 19 percent of those who got reported second, third and no choice reported the counselor was the most important source of influence. The counselor, then, is more commonly associated with not getting the course of their first choice. This may be because counselors dissuade students from their first choice or it may be because students who did not get their first choice must see their counselors for discussion of a second or third choice. Undoubtedly, both factors operate, but the data does not provide a basis for further speculation as to the dynamics.

The reverse relationship is seen for parents. Whereas 28 percent of those who got the course of their first choice reported parents as the most important influence, only 18 percent of those who reported that they had no choice reported parents as the most important influence. Perhaps strong parental endorsement may make it easier for students to get the course of their choice.

It is clear that no single source of course selection influence precludes students getting a course of second, third or no choice at all. The process of selecting a vocational course choice needs much closer study to determine relationships between sources of influence and order of choice.

TABLE 3.7. RELATION BETWEEN ORDER OF CHOICE FOR VOCATIONAL COURSE TAKEN AND OCCUPATIONAL INFORMATION AT THE TIME OF COURSE CHOICE.

	ORDER OF VOCATIONAL COURSE CHOICE (ALL GRADUATES)								
	FIRST CHOICE		SECOND CHOICE		THIRD CHOICE		NO CHOICE		TOTAL CASES
HOW WELL INFORMED WERE YOU AT TIME YOU MADE COURSE CHOICE	N	%	N	%	N	%	N	%	N
EXCELLENT INFORMATION	2014	18.2	171	11.5	51	12.6	122	12.1	2358
GOOD INFORMATION.	5476	49.6	667	44.7	137	34.0	371	36.7	6651
FAIR INFORMATION.	2863	25.9	509	34.1	155	38.5	335	33.2	3862
POOR INFORMATION.	677	6.1	144	9.6	60	14.9	182	18.0	1063
TOTAL.	11030	100.0	1491	100.0	403	100.0	1010	100.0	13934

COMMENTARY. Table 3.7 provides evidence that there is a relationship between order of course choice and how well informed students are about the occupation to be studied, assuming graduates recalled correctly. As the order of choice declines from first to no choice, the percentage of graduates who reported excellent occupational information declined from 18 to 12 percent, and who reported good declined from 50 to 38 percent. Conversely, the percentage who reported poor increase from 6 to 18 percent. Why is this? The most plausible interpretation would seem to be that those who can't get their first choice are turned by circumstances, including counselors, toward occupations with which they are less familiar. Any administrative process that prevents students from obtaining the course of their first choice is incompatible with the process of arriving at a career decision through adequate career orientation and occupational information. Other things equal, the student will probably know most about the occupation that is his preferred or first choice and least about an occupation forced upon him by school or non-school circumstances beyond his control. The student whose first choice is rejected has relatively little time to arrive at a second choice, and if that is rejected, the same applies to a third choice. Where computerized scheduling is the practice, first, second and third choice must be indicated at one time. If the course is full, the student is automatically enrolled in his second choice, and if that is full, the process goes on to the third choice. One might call this the computerized career decision process. If all three choices are rejected, the machine registers a "tilt" and the student is sent to the counselor for resolution of the problem.

TABLE 3.8. RELATION BETWEEN ORDER OF CHOICE FOR VOCATIONAL COURSE TAKEN AND PLANS TO WORK IN THE OCCUPATIONAL FIELD OF STUDY.

	ORDER OF VOCATIONAL COURSE CHOICE (ALL GRADUATES)									
	FIRST CHOICE		SECOND CHOICE		THIRD CHOICE		NO CHOICE		TOTAL CASES	
DID YOU PLAN TO WORK IN THAT OCCUPATION WHEN IT WAS SELECTED	N	%	N	%	N	%	N	%	N	%
YES, DEFINITELY.	4723	43.2	379	25.8	109	27.5	236	23.8	5447	39.5
YES, NOT DEFINITE.	5064	46.3	753	51.3	169	42.7	400	40.3	6386	46.3
NO, NOT DEFINITE	907	8.3	236	16.1	73	18.4	197	19.8	1413	10.2
NO, DEFINITELY	249	2.3	100	6.8	45	11.4	160	16.1	554	4.0
TOTAL	10943	100.0	1468	100.0	396	100.0	993	100.0	13800	100.0

COMMENTARY. Let's assume that whether a student gets his first, second, or third choice of vocational course is more likely to influence his plans for post-high school work in the occupation to be studied than the converse. That's an eminently reasonable assumption. On that basis, Table 3.8 provides an insight into why so many graduates do not obtain employment in the field for which trained. Many do not plan to work in the field for which trained because they did not get the vocational course of their preferred first choice. Look at the data. The percentage who reported, Yes, definitely (They planned to work in the occupation studied) was greatest for those who reported getting the vocational course of their first choice (43%) and least for those who reported they had no choice (24%). At the other extreme, the percentage that reported "No, definitely" was the smallest for those who got the course of their first choice (2%) and the greatest for those who reported that they had no choice (16%). This data confirms that order of choice influences plans to work in the field studied and eventually (Table 3.10) the relatedness of employment to the occupation studied. Lack of getting the vocational course of one's choice is one of the major factors that influences the student's motivation to later seek employment in the field of study. Undoubtedly, the factor also influences motivation to learn while attending the vocational course.

TABLE 3.9. RELATION BETWEEN ORDER OF CHOICE FOR VOCATIONAL COURSE TAKEN AND PRESENT STATUS OF VOCATIONAL GRADUATES.

	ORDER OF VOCATIONAL COURSE CHOICE (ALL GRADUATES)									
	FIRST CHOICE		SECOND CHOICE		THIRD CHOICE		NO CHOICE		TOTAL CASES	
	N	%	N	%	N	%	N	%	N	%
WHAT IS YOUR PRESENT STATUS (MULTIPLE RESPONSES)										
EMPLOYED, FULL-TIME	5157	46.6	667	44.6	159	39.4	411	34.5	6394	45.2
EMPLOYED, PART-TIME	1508	13.6	199	13.3	55	13.6	192	16.1	1954	13.8
UNEMPLOYED, LOOKING	1761	15.9	335	22.4	109	27.0	282	23.7	2487	17.6
UNEMPLOYED, NOT LOOKING*	2346	21.2	264	17.6	74	18.3	271	22.7	2955	20.9
COLLEGE, FULL-TIME	2998	27.1	320	21.4	85	21.0	343	28.8	3746	26.5
COLLEGE, PART-TIME	514	4.6	73	4.9	27	6.7	89	7.5	703	5.0
SCHOOL, FULL-TIME	452	4.1	66	4.4	19	4.7	52	4.4	589	4.2
SCHOOL, PART-TIME	351	3.2	77	5.1	20	5.0	45	3.8	493	3.5
MILITARY SERVICE	141	1.3	20	1.3	5	1.2	16	1.3	182	1.3
OTHER THAN ABOVE	150	1.4	12	.8	2	.5	20	1.7	184	1.3
TOTAL	11063	--	1497	--	404	--	1192	--	14156	--

*Mainly graduates who are attending college or school.

COMMENTARY. Table 3.9 explores the relationship between order of vocational course choice and the status of the graduates at the time of the survey. The reader should examine the row of percentages for each present status category. There is no relationship between order of choice and part-time employment; school full-time; school, part-time and military service.

Full-time employment status is related to order of choice. The percentage of full-time employment decreases as the order of choice decreases. Only 34.5% of those who reported they had no choice were employed full-time in contrast with 46.6% of those who had the course of their first choice.

Unemployment status is also related to order of choice. Whereas 16% of those who had their first choice reported they were unemployed and looking, the comparable figure for those who had no choice was 24 percent.

We have no convincing explanation for the relationships. Perhaps those who did not get their first choice are less motivated to find employment in their field and therefore more likely to be rejected by prospective employers. We know that the first part of the statement is correct. The second is only conjecture.

TABLE 3.10. RELATION BETWEEN ORDER OF CHOICE FOR VOCATIONAL COURSE TAKEN AND RELATEDNESS OF JOB TO VOCATIONAL COURSE TAKEN.

	ORDER OF VOCATIONAL COURSE CHOICE (ALL GRADUATES)									
	FIRST CHOICE		SECOND CHOICE		THIRD CHOICE		NO CHOICE		TOTAL CASES	
HOW RELATED IS JOB TO HIGH SCHOOL OCCUPATIONAL COURSE	N	%	N	%	N	%	N	%	N	%
SAME OCCUPATION.	1149	25.8	66	11.9	16	12.1	10	3.2	1241	22.8
HIGHLY RELATED	1094	24.6	111	20.1	16	12.1	18	5.8	1239	22.7
SLIGHTLY RELATED	1009	22.7	174	31.5	36	27.3	80	25.8	1299	23.8
COMPLETELY UNRELATED	1200	26.9	202	36.5	64	48.5	202	65.2	1668	30.6
TOTAL	4452	100.0	553	100.0	132	100.0	310	100.0	5447	100.0

COMMENTARY. Table 3.10 shows that the lower the level of choice, the smaller the percentage of graduates employed in the field for which trained. Of those who reported that they had no choice, only 3 percent were employed in the occupation studied and only 6 percent entered a highly related occupation. About 65 percent of these graduates were employed in an occupation completely unrelated to the occupation studied. At the other extreme, those who reported getting the vocational course of their first choice, showed the greatest percentage of graduates employed in the same occupation studied (26%) and the greatest percentage of graduates employed in a highly related field (25%).

If we can assume that the graduates, in the main, reported their course choice correctly, then the data refutes the practice of placing students in courses that are not their preferred first choice. Such practices may be an administrative convenience to balance enrollments with existing vocational curricula capacities, but they are counterproductive from the standpoint of increasing the percentage of graduates placed into the field for which trained. One way to increase the percentage of graduates placed into the field for which trained is to increase the percentage of students who are enrolled in the course of their preferred first choice. It makes sense. The would-be auto mechanic who is forced into carpentry may decide that he has an aversion to wood at graduation time.

TABLE 3.11. RELATION BETWEEN ORDER OF CHOICE FOR VOCATIONAL COURSE TAKEN AND REASONS FOR NOT GETTING JOB IN FIELD OF STUDY.

WHAT WAS MAIN REASON FOR FIRST FULL-TIME JOB NOT IN FIELD	ORDER OF VOCATIONAL COURSE CHOICE (ALL GRADUATES)									
	FIRST CHOICE		SECOND CHOICE		THIRD CHOICE		NO CHOICE		TOTAL CASES	
	N	%	N	%	N	%	N	%	N	%
TRIED, NO JOB FOUND.	373	20.7	45	14.0	17	20.2	39	15.6	474	19.3
NOT ACCEPTED AS APPRENTICE	56	3.1	12	3.7	7	8.3	16	6.4	91	3.7
INSUFFICIENT QUALIFICATIONS.	237	13.2	58	18.0	11	13.1	32	12.8	338	13.8
DISLIKED TYPE WORK	223	12.4	28	8.7	8	9.5	28	11.2	287	11.7
EARNINGS TOO LOW	57	3.2	9	2.8	3	3.6	10	4.0	79	3.2
ADVANCEMENT POOR	43	2.4	13	4.0	2	2.4	5	2.0	63	2.6
BETTER JOB OFFERED	207	11.5	35	10.9	11	13.1	19	7.6	272	11.1
NO PLANS TO WORK IN FIELD.	155	8.6	40	12.4	11	13.1	37	14.8	243	9.9
OTHER REASON	449	24.9	82	25.5	14	16.7	64	25.6	609	24.8
TOTAL	1800	100.0	322	100.0	84	100.0	250	100.0	2456	100.0

COMMENTARY. Table 3.11 explores the relationship between order of vocational course choice and reasons given by graduates for not obtaining a job in the field for which trained. Inspection of the data shows that order of vocational course choice is unrelated to the following reasons given:

- Insufficient qualifications
- Dislike of type of work
- Earnings too low
- Poor advancement opportunity
- Better job came along first

Order of choice does appear to be related to the reason, No plans to work in the field. The relationship, however, is not substantial. It does indicate that the less choice the student had, the more likely will he not plan to work in the field. Our overall generalization is that order of vocational course choice does not differentially influence the reasons given by graduates for not getting a job in their field of study. Lest there be a misunderstanding, it is re-emphasized that order of vocational course choice is definitely related to whether or not graduates enter the field for which trained. Table 3.10 provided clear evidence that the likelihood of employment in the field for which trained decreases as order of choice decreases.

TABLE 3.12. RELATION BETWEEN SOURCES OF INFLUENCE ON VOCATIONAL COURSE SELECTION AND OCCUPATIONAL INFORMATION AT THE TIME OF COURSE CHOICE.

	RATING OF PRE-COURSE OCCUPATIONAL INFORMATION									
	EXCEL-LENT		GOOD		FAIR		POOR		TOTAL CASES	
WHO INFLUENCED YOUR VOCATIONAL COURSE CHOICE THE MOST	N	%	N	%	N	%	N	%	N	%
GUIDANCE COUNSELOR	336	14.4	992	15.0	615	16.1	164	16.4	2107	15.3
VOCATIONAL TEACHER	405	17.4	923	14.0	416	10.9	101	10.1	1845	13.4
OTHER SCHOOL PERSONNEL	126	5.4	279	4.2	203	5.3	66	6.6	674	4.9
PARENTS	643	27.6	1809	27.4	980	25.6	221	22.1	3653	26.6
BROTHER/SISTER	151	6.5	464	7.0	252	6.6	57	5.7	924	6.7
RELATIVE/FAMILY FRIEND	196	8.4	641	9.7	322	8.4	75	7.5	1234	9.0
FRIENDS YOUR AGE	251	10.8	914	13.8	636	16.6	176	17.6	1977	14.4
OTHER THAN ABOVE	224	9.6	581	8.8	396	10.4	138	13.8	1339	9.7
TOTAL	2332	100.0	6603	100.0	3820	100.0	998	100.0	13753	100.0

COMMENTARY. Table 3.12 explores the possibility of a relationship between how the graduates rated their pre-vocational course occupational information and the sources reported to have influenced their vocational course selection. Notice that as the data runs from "excellent" to "poor", the percentage of cases reporting being influenced most by vocational teachers and parents shows a consistent decrease, e.g. 17.4, 14.0, 10.9 and 10.1 for vocational teachers and 27.6, 27.4, 25.6 and 22.1 for parents. What does this mean? It suggests that these two sources are more associated with the "excellent" end of the information rating than the "poor" end. The converse is true of "friends your age". The percentages increase from left (excellent) to right (poor), indicating that this source is more associated with the wrong end of the continuum. To a lesser degree, the same is true for guidance counselors.

The reader is warned that we can't attribute a cause-effect relationship, although we may suspect that such a relationship exists for vocational teachers, parents and peer-group friends. In other words, students influenced by parents are more likely to have excellent or good information about the occupation at the time of course selection. Conversely, student's whose vocational course choice was influenced by friends of the same age are more likely to have fair or poor information about the occupation studied. The data is not conclusive, but that is our interpretation. The practical implication is that career orientation should more actively involve parents and vocational teachers. It should not be a case of the student sitting on one end of the log with the counselor on the other end.

TABLE 3.13. RELATION BETWEEN SOURCES OF INFLUENCE ON VOCATIONAL COURSE SELECTION AND PLANS TO WORK IN THE OCCUPATIONAL FIELD OF STUDY.

	PLANS TO WORK IN FIELD AT TIME OF CHOICE (ALL VOCATIONAL GRADUATES)									
	YES, DEFINITELY		YES, INDEFINITE		NO, INDEFINITE		NO, DEFINITELY		TOTAL CASES	
	N	%	N	%	N	%	N	%	N	%
WHO INFLUENCED YOUR VOCATIONAL COURSE CHOICE THE MOST										
GUIDANCE COUNSELOR	696	13.1	989	15.6	254	18.1	132	24.5	2071	15.2
VOCATIONAL TEACHER	768	14.4	848	13.4	158	11.3	49	9.1	1823	13.4
OTHER SCHOOL PERSONNEL	237	4.4	310	4.9	79	5.6	43	8.0	669	4.9
PARENTS.	1606	30.1	1627	25.7	293	20.9	84	15.6	3610	26.5
BROTHER/SISTER	394	7.4	424	6.7	70	5.0	29	5.4	917	6.7
RELATIVE/FAMILY FRIEND	519	9.7	591	9.3	91	6.5	23	4.3	1224	9.0
FRIENDS YOUR AGE	620	11.6	977	15.4	271	19.3	90	16.7	1958	14.4
OTHER THAN ABOVE	486	9.1	572	9.0	186	13.3	88	16.4	1332	9.8
TOTAL	5326	100.0	6338	100.0	1402	100.0	538	100.0	13604	100.0

COMMENTARY. Table 3.13provides the data that relates plans to work in the field of study with the persons who influenced the vocational course the most. The percentages of those who responded Yes, definitely; Yes, indefinite; No, indefinite; and No, definitely were 13, 16, 18 and 24 percent respectively for guidance counselors. This indicates that guidance counselors, relative to the other sources of influence, have disproportionate numbers of students with no plans to work in the field. A similar trend is evidenced for "Other school personnel" and "Friends of the same age". These three sources account for almost 50 percent of those who definitely do not plan to work in the field of study, and 43 percent of those who do not plan to work in the field but are not definite.

A converse pattern is seen for parents, vocational teachers and relatives. They account for only 29 percent of those who definitely do not plan to work in their field, and 54 percent of those who definitely plan to work in their field.

Our interpretation is that those influenced by counselors, friends and school personnel other than vocational teachers are less likely to have strong career plans of their own than is the case for those influenced by parents, vocational teachers and relatives. Hence, they are more inclined to seek the aid of counselors and school personnel other than teachers. The data does not reflect adversely on counselors. Rather it suggests a selective process that means counselors get disproportionately problem cases.

TABLE 3.14. RELATION BETWEEN SOURCES OF INFLUENCE ON VOCATIONAL COURSE SELECTION AND PRESENT STATUS OF VOCATIONAL GRADUATES.

	SOURCE OF INFLUENCE ON SELECTION (ALL VOCATIONAL GRADUATES)															
	GUIDANCE COUNSELOR		VOCATIONAL TEACHER		OTHER SCHOOL PERSON		PARENT		BROTHER/ SISTER		RELATIVE/ FRIEND		PEER/ FRIEND		TOTAL CASES	
WHAT IS YOUR PRESENT STATUS (MULTIPLE RESPONSES)	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
EMPLOYED, FULL-TIME.	820	38.7	882	47.7	283	41.7	1759	48.0	443	47.7	594	48.1	930	46.8	6275	45.4
EMPLOYED, PART-TIME.	291	13.7	250	13.5	101	14.9	486	13.2	146	15.7	[illegible]62	13.1	244	12.3	1899	13.7
UNEMPLOYED, LOOKING.	492	23.2	284	15.4	122	18.0	553	15.1	163	17.6	206	16.7	411	20.7	2420	17.5
UNEMPLOYED, NOT LOOKING* . .	455	21.5	379	20.5	158	23.3	780	21.3	153	16.5	239	19.4	363	18.3	2874	20.8
COLLEGE, FULL-TIME	554	26.1	507	27.4	214	31.5	945	25.8	221	23.8	292	23.6	434	21.9	3624	26.2
COLLEGE, PART-TIME	101	4.8	105	5.7	31	4.6	170	4.6	51	5.5	59	4.8	83	4.2	682	4.9
SCHOOL, FULL-TIME.	98	4.6	76	4.1	20	2.9	166	4.5	24	2.6	51	4.1	87	4.4	576	4.2
SCHOOL, PART-TIME.	72	3.4	68	3.7	28	4.1	129	3.5	28	3.0	40	3.2	62	3.1	492	3.6
MILITARY SERVICE	31	1.5	32	1.7	10	1.5	43	1.2	8	.9	11	.9	16	.8	175	1.3
OTHER THAN ABOVE	31	1.5	23	1.2	5	.7	46	1.2	15	1.6	23	1.9	21	1.1	183	1.3
TOTAL	2120	--	1850	--	679	--	3667	--	928	--	1235	--	1985	--	13826	--

*Mainly graduates who are attending college or school.

COMMENTARY. Table 3.14 explores possible relationships between the claimed sources of influence on vocational course selection and the present status of the vocational graduates. (The column percentages exceed 100 percent because a graduate may be in two outcome categories, e.g. employed full-time and college part-time). A comparison of the row percentages for a given present status category indicates no differences worthy of interpretation for military service, school other than college attendance, part-time college attendance and part-time employment. In other words, regardless of who influenced the course choice the most, these kinds of outcomes are not differentially influenced.

Full-time employment is another story. Those influenced by counselors and school personnel other than teachers have a lower percentage of full-time employment. They also have a higher percentage of unemployed and looking for work. We are inclined to interpret this data to mean that those who seek counselor assistance in vocational course decisions are with unknown characteristics that predispose them to more difficulty in finding full-time employment. They may be the students who are less motivated, less capable. They may also be those who have employment difficulty because of minority status. Previous findings have indicated that such students look toward school personnel for guidance more frequently than do non-minority group students.

TABLE 3.15. RELATION BETWEEN SOURCES OF INFLUENCE ON VOCATIONAL COURSE SELECTION AND METHODS USED TO GET FIRST JOB AFTER HIGH SCHOOL.

	SOURCE OF INFLUENCE ON SELECTION (ALL VOCATIONAL GRADUATES)															
	GUIDANCE COUNSELOR		VOCATIONAL TEACHER		OTHER SCHOOL PERSON		PARENT		BROTHER/ SISTER		RELATIVE/ FRIEND		PEER/ FRIEND		TOTAL CASES	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
METHOD USED TO GET FIRST FULL TIME JOB AFTER HIGH SCHOOL																
ALREADY HAD JOB.	170	23.7	227	31.4	63	25.2	374	24.3	100	25.4	131	25.0	229	27.9	1435	26.5
THRU VOCATIONAL TEACHER. . .	50	7.0	133	18.4	19	7.6	107	7.0	21	5.3	39	7.4	59	7.2	451	8.3
THRU SCHOOL COUNSELOR. . . .	41	5.7	22	3.0	6	2.4	54	3.5	26	6.6	15	2.9	22	2.7	191	3.5
THRU SCHOOL PLACEMENT. . . .	63	8.8	45	6.2	25	10.0	135	8.8	37	9.4	51	9.8	68	8.3	453	8.4
OTHER SCHOOL PERSONNEL . . .	13	1.8	6	0.8	5	2.0	16	1.0	5	1.3	16	3.0	19	2.3	95	1.8
PRIVATE EMPLOYMENT AGENCY. .	34	4.7	19	2.6	15	6.0	94	6.1	24	6.1	18	3.4	28	3.4	253	4.7
STATE EMPLOYMENT AGENCY. . .	47	6.6	30	4.1	8	3.2	58	3.8	16	4.1	15	2.9	35	4.3	230	4.2
PARENT OR RELATIVE	38	5.3	35	4.8	15	6.0	106	6.9	22	5.6	41	7.8	35	4.3	313	5.8
FRIEND	88	12.3	64	8.8	33	13.2	176	11.4	41	10.4	91	17.4	135	16.5	678	12.5
ON MY OWN, NO HELP	173	24.1	143	19.3	61	24.4	418	27.2	102	25.9	106	20.3	190	23.2	1324	24.4
TOTAL	717	100.0	724	100.0	250	100.0	1538	100.0	394	100.0	523	100.0	820	100.0	5423	100.0

COMMENTARY. Table 3.15 explores the possibility that those who most influenced vocational course choice were also those most relied upon to find a full-time job. The data does lend slight support to the hypothesis as it relates to vocational teachers. For example, 18 percent of those who acknowledged that a vocational teacher influenced their vocational course choice the most reported that they got their first job through their vocational teacher. This is better than twice the percentages credited to vocational teachers by graduates in the other categories. Similarly, where friends influenced the course choice the most, friends were also the greatest single source of help in finding a job.

The hypothesis is not confirmed by data for counselors and parents. This may be because the large percentage that already had a job upon graduation did not have an opportunity to indicate how they got their job. The lack of data points up the limitations of the questionnaire method to get at the dynamics of how vocational courses are selected and how jobs are found after graduation. Intensive interviewing of small samples of cases that fall in certain questionnaire answer categories is needed.

TABLE 3.16. RELATION BETWEEN SOURCES OF INFLUENCE ON VOCATIONAL COURSE SELECTION AND RELATEDNESS OF JOB TO VOCATIONAL COURSE TAKEN.

	RELATEDNESS OF JOB TO VOCATIONAL COURSE STUDIED									
	SAME OCCUP		HIGHLY RELATED		SLIGHTLY RELATED		COMPLETELY UNRELATED		TOTAL CASES	
WHO INFLUENCED YOUR VOCATIONAL COURSE CHOICE THE MOST	N	%	N	%	N	%	N	%	N	%
GUIDANCE COUNSELOR.	124	10.3	152	12.4	183	14.2	239	14.6	698	13.0
VOCATIONAL TEACHER.	170	14.2	194	15.8	144	11.1	207	12.7	715	13.4
OTHER SCHOOL PERSONNEL.	48	4.0	63	5.1	57	4.4	76	4.6	244	4.6
PARENTS	389	32.4	376	30.6	347	26.8	413	25.3	1525	28.5
BROTHER/SISTER.	113	9.4	90	7.3	86	6.6	100	6.1	389	7.3
RELATIVE/FAMILY FRIEND.	125	10.4	117	9.5	124	9.6	146	8.9	512	9.6
FRIENDS YOUR AGE.	151	12.6	147	12.0	222	18.0	289	17.7	819	15.3
OTHER THAN ABOVE.	80	6.7	89	7.2	119	9.2	162	9.9	450	8.4
TOTAL.	1200	100.0	1228	100.0	1292	100.0	1632	100.0	5352	100.0

COMMENTARY. Table 3.16 attempts to explore more precisely the relationship between sources of influence on vocational course selection and the later relatedness of jobs held to vocational course studied. It appears that a higher percentage of those employed in the same or a highly related job reported that they were influenced by vocational teachers, parents, and siblings, whereas a lower percentage of the same group of graduates reported guidance counselors and peer group friends as their main source of vocational course selection influence.

The reader is reminded that no causal relationships are implied. The reason guidance counselors, for example, may be more frequently associated with those who do not make it into the field for which trained or do not want employment therein may be because those who become their clients may be less certain about what they want at the time for vocational course selection.

TABLE 3.17. RELATION BETWEEN SOURCES OF INFLUENCE ON VOCATIONAL COURSE SELECTION AND REASONS FOR NOT GETTING JOB IN FIELD OF STUDY.

	SOURCE OF INFLUENCE ON SELECTION (ALL VOCATIONAL GRADUATES)															
	GUIDANCE COUNSELOR		VOCATIONAL TEACHER		OTHER SCHOOL PERSON		PARENT		BROTHER/ SISTER		RELATIVE/ FRIEND		PEER/ FRIEND		TOTAL CASES	
WHAT WAS MAIN REASON FOR FIRST FULL-TIME JOB NOT IN FIELD	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
TRIED, NO JOB FOUND	70	20.0	58	20.3	22	20.7	138	22.0	25	17.4	43	19.0	78	17.6	469	19.3
NOT ACCEPTED AS APPRENTICE. . . .	22	6.3	14	4.9	3	2.8	27	4.3	3	2.1	4	1.8	19	4.3	97	4.0
INSUFFICIENT QUALIFICATIONS . . .	41	11.7	40	14.0	19	17.9	98	15.6	24	16.7	25	11.1	53	11.9	329	13.6
DISLIKED TYPE WORK.	38	10.9	16	5.6	12	11.3	80	12.7	14	9.7	28	12.4	65	14.6	281	11.6
EARNINGS TOO LOW.	15	4.3	18	6.3	4	3.8	16	2.5	4	2.8	8	3.5	10	2.2	84	3.5
ADVANCEMENT POOR.	9	2.6	14	4.9	1	.9	10	1.6	3	2.1	10	4.4	9	2.0	61	2.5
BETTER JOB OFFERED.	41	11.7	31	10.9	7	6.6	63	10.0	22	15.3	23	10.2	56	12.6	271	11.2
NO PLANS IN FIELD	46	13.1	29	10.2	12	11.3	47	7.5	12	8.3	14	6.2	49	11.0	244	10.1
OTHER REASON.	68	19.4	65	22.8	26	24.5	149	23.7	37	25.7	71	31.4	105	23.6	588	24.3
TOTAL.	350	100.0	285	100.0	106	100.0	628	100.0	144	100.0	226	100.0	444	100.0	2424	100.0

COMMENTARY. Table 3.17 explores the possible relationship between sources that influenced vocational course selection the most and reasons cited by graduates for not getting a job in the field for which trained. Inspection of the data reveals that the source of influence on vocational course selection is unrelated to the following reasons cited for not getting a job in the field of study.

- Tried, but could find no job
- Not accepted as an apprentice
- Insufficient qualifications
- Earnings too low
- Poor advancement opportunity
- Better job came along first

There is a suggestion in the data that those influenced by vocational teachers are less likely to report that they disliked the type of work. Also, those influenced by parents and relatives are less likely to report that they never planned to work in the field studied. Aside from these points, one can't make a case for a relationship between the kinds of sources that have influenced vocational course selection and the type of reasons cited by graduates for not getting a job in the field for which trained. The small number of cases in many cells may operate to obscure some relationships, but that is mere conjecture. Expected relationships did not materialize.

TABLE 3.18. RELATION BETWEEN OCCUPATIONAL INFORMATION AT TIME OF COURSE CHOICE AND PLANS TO WORK IN FIELD OF STUDY.

DID YOU PLAN TO WORK IN THAT OCCUPATION WHEN IT WAS SELECTED	RATING OF PRE-COURSE OCCUPATIONAL INFORMATION (ALL GRADUATES)									
	EXCEL-LENT		GOOD		FAIR		POOR		TOTAL CASES	
	N	%	N	%	N	%	N	%	N	%
YES, DEFINITELY.	1447	60.5	2834	41.8	1019	25.7	277	25.4	5577	39.2
YES, NOT DEFINITE.	764	32.0	3223	47.6	2195	55.3	435	39.9	6617	46.5
NO, NOT DEFINITE	115	4.8	553	8.2	579	14.6	212	19.9	1459	10.3
NO, DEFINITELY	65	2.7	162	2.4	173	4.4	166	15.2	566	4.0
TOTAL	2391	100.0	6772	100.0	3966	100.0	1090	100.0	14219	100.0

COMMENTARY. Table 3.18 shows a strong relationship between how well informed the student is about the occupation at the time of vocational course choice and his plans to work in the occupation later. Of those who reported their knowledge of the occupation was excellent, 92 percent claimed they planned to work in the occupation and 60 percent were definite. In contrast, of those who claimed their occupational information was poor, only 65 percent reported that they planned to work in the occupation about to be studied and 25 percent only were definite about such plans. The suggested relationship is, the better their information about the occupation selected for study, the more likely they are to plan employment in the field studied. Previously, we established that the order of vocational course choice, e.g. first, second, third, etc. choice was positively related to the rating of occupation information, e.g. excellent, good, fair or poor. The present table further unfolds the dynamics, i.e. not getting the course of the first choice, means a greater likelihood of less than adequate information about the occupation involved and less likelihood that the student will plan to work in the field for which trained, assuming he completes the program. Also, there is the implication that no matter how excellent the pre-vocational course occupational orientation program, if students do not get their first choice, they still may have less than adequate information about the occupation involved in the course in which finally enrolled.

TABLE 3.19 RELATION BETWEEN OCCUPATIONAL INFORMATION AT TIME OF COURSE CHOICE AND PRESENT STATUS OF VOCATIONAL GRADUATE

WHAT IS YOUR PRESENT STATUS	RATING OF PRE-COURSE OCCUPATIONAL INFORMATION									
	EXCEL-LENT		GOOD		FAIR		POOR		TOTAL CASES	
	N	%	N	%	N	%	N	%	N	%
EMPLOYED, FULL-TIME.	1178	48.7	3178	46.3	1730	43.0	474	42.9	6560	45.6
EMPLOYED, PART-TIME.	321	13.3	920	13.4	557	13.9	178	16.1	1976	13.7
UNEMPLOYED, LOOKING.	322	13.3	1187	17.3	806	20.0	207	18.7	2522	17.5
UNEMPLOYED, NOT LOOKING.	531	22.0	1399	20.4	830	20.6	214	19.4	2974	20.6
COLLEGE, FULL-TIME	677	28.0	1746	25.4	1027	25.6	319	28.8	3769	26.2
COLLEGE, PART-TIME	145	6.0	308	4.5	186	4.6	70	6.3	709	4.9
SCHOOL, FULL-TIME.	97	4.0	308	4.5	146	3.6	40	3.6	591	4.1
SCHOOL, PART-TIME.	76	3.1	245	3.6	152	3.8	39	3.5	512	3.6
MILITARY SERVICE	45	1.9	77	1.1	47	1.2	14	1.3	183	1.3
OTHER THAN ABOVE	22	.9	97	1.4	49	1.2	19	1.7	187	1.3
TOTAL	2419	--	6858	--	4019	--	1106	--	14402	--

COMMENTARY. Table 3.19 explores the relationship between the graduate's rating of his pre-vocational course occupational information and his present status in terms of employment and/or education. The table reveals no impressive relationships. The percentage employed full-time decreases as the occupational information ranges from excellent to poor, but the magnitude of the decrease is small. Similarly, there is a suggestion that those who rated their pre-course occupational information as excellent or good had lower percentages for "unemployed and looking" than those whose self-rating of occupational information was "fair" or "poor".

We are skeptical of a causal relationship between degree of pre-course information about the occupation to be studied and the post-high school employment and/or education outcomes indicated in Table 3.19. What is more probably the case is that there are common characteristics that cause some students to be inadequately informed about the occupation they are about to study and later also cause them to have employment difficulties. But, this interpretation obviously does not account for the more impressive lack of relationships revealed by Table 3.19. It merely hints once again, as does so much of our data, that there are unidentified student characteristics or traits that mediate relationships between reflection of process variables, e.g. career guidance, placement services, etc. and the vocational outcomes experienced by the graduates.

TABLE 3.20. RELATION BETWEEN OCCUPATIONAL INFORMATION AT TIME OF COURSE CHOICE AND METHODS USED TO GET FIRST JOB AFTER HIGH SCHOOL.

METHOD USED TO GET FIRST FULL-TIME JOB AFTER HIGH SCHOOL	RATING OF PRE-COURSE OCCUPATIONAL INFORMATION									
	EXCEL-LENT		GOOD		FAIR		POOR		TOTAL CASES	
	N	%	N	%	N	%	N	%	N	%
ALREADY HAD JOB.	276	27.6	730	26.5	403	26.6	97	24.2	1506	26.6
THRU VOCATIONAL TEACHER.	109	10.9	239	8.7	92	6.1	28	7.0	468	8.2
THRU SCHOOL COUNSELOR.	41	4.1	104	3.8	47	3.1	11	2.7	203	3.6
THRU SCHOOL PLACEMENT.	93	9.3	249	9.0	101	6.7	22	5.5	465	8.2
OTHER SCHOOL PERSONNEL	15	1.5	46	1.7	29	1.9	6	1.5	96	1.7
PRIVATE EMPLOYMENT AGENCY.	53	5.3	128	4.6	58	3.8	22	5.5	261	4.6
STATE EMPLOYMENT AGENCY.	27	2.7	107	3.9	85	5.6	20	5.0	235	4.2
PARENT OR RELATIVE	60	6.0	153	5.5	93	6.1	19	4.7	325	5.7
FRIEND	97	9.7	337	12.2	215	14.2	53	13.2	702	12.4
ON MY OWN, NO HELP	228	22.8	666	24.1	390	25.8	122	30.5	1406	24.8
TOTAL	999	100.0	2759	100.0	1513	100.0	400	100.0	5671	100.0

COMMENTARY. Table 3.20 checks the hypothesis that there is a relationship between how well informed students are about the occupation to be studied and the methods they use to secure employment upon graduation from high school. The data reveals no impressive relationships. The data indicates that those who rated their occupation information excellent or good relied slightly more on vocational teachers, school placement services and less on state employment agencies and peer group friends for jobs. However, the percentage differences are of negligible practical significance. We prefer to conclude that no significant relationship exists between how well informed students are about the occupation selected for study and the methods they later use to find full-time employment. One can generate plausible hypotheses why there should be such relationships, e.g. those who are poorly informed do less well and are therefore less likely to be helped by school personnel, but the data has the last word.

TABLE 3.21. RELATION BETWEEN OCCUPATIONAL INFORMATION AT TIME OF COURSE CHOICE AND RELATEDNESS OF JOB TO VOCATIONAL COURSE TAKEN.

RATING OF PRE-COURSE OCCUPATIONAL INFORMATION (FULL-TIME EMPLOYED)

HOW RELATED IS JOB TO HIGH SCHOOL OCCUPATIONAL COURSE	EXCEL-LENT		GOOD		FAIR		POOR		TOTAL CASES	
	N	%	N	%	N	%	N	%	N	%
SAME OCCUPATION	300	30.4	629	23.2	262	17.4	65	16.6	1256	22.4
HIGHLY RELATED.	265	26.8	691	25.4	262	17.4	51	13.0	1269	22.7
SLIGHTLY RELATED	196	19.8	656	24.1	405	27.0	90	23.0	1347	24.1
COMPLETELY UNRELATED.	227	23.0	740	27.2	573	38.1	186	47.4	1726	30.8
TOTAL.	988	100.0	2716	100.0	1502	100.0	392	100.0	5598	100.0

COMMENTARY. The data confirms the relationship between how well informed a student is about the occupation selected for study and the likelihood that he will enter the field for which trained. Only 17 percent of those employed in the same occupation studied reported that their pre-course information about the occupation was poor; in contrast, 47 percent of those employed in occupations completely unrelated to what was studied reported their pre-course information about the occupation studied was poor.

If we can assume that the graduates were reasonably correct in rating their pre-vocational course information about the occupational course studied, the data strongly suggests that the better students understand the characteristics of the occupation elected for study, e.g. nature of work, conditions of work, earnings and earnings potential, opportunities for advancement, etc., the more likely will they enter the field for which trained. Thus, improved career orientation and information programs would seem to be another process by which school systems can improve the percentage of graduates placed into the field for which trained, given that the job opportunities exist.

It would be desirable to confirm this relationship in a longitudinal study that collects data in how well informed students are about the occupation at the time students select their vocational course.

TABLE 3.22. RELATION BETWEEN OCCUPATIONAL INFORMATION AT TIME OF COURSE CHOICE AND REASONS FOR NOT GETTING JOB IN FIELD OF STUDY.

	RATING OF PRE-COURSE OCCUPATIONAL INFORMATION			
	EXCELLENT & GOOD		FAIR & POOR	
WHAT WAS MAIN REASON FOR FIRST FULL-TIME JOB NOT IN FIELD	N	%	N	%
TRIED, NO JOB FOUND.	313	21.3	184	17.1
NOT ACCEPTED AS APPRENTICE	48	3.3	51	4.8
INSUFFICIENT QUALIFICATIONS.	177	12.0	170	15.8
DISLIKED TYPE WORK	161	10.9	135	12.6
EARNINGS TOO LOW	40	2.7	47	4.4
ADVANCEMENT POOR	31	2.1	34	3.2
BETTER JOB OFFERED	178	12.1	103	9.6
NO PLANS IN FIELD.	113	7.7	135	12.6
OTHER REASON	411	27.9	214	19.9
TOTAL	1472	100.0	1073	100.0

COMMENTARY. Table 3.22 concerns the relationship between how well informed the graduates rated themselves on pre-course occupational information and reasons cited why they did not get a job in the field for which trained. The data for those who rated their occupational information excellent and good was combined for comparison of like data for those who rated their occupational information fair or poor.

The percentage differences are not impressive. However, there is an interesting consistency in the direction of the data. A slightly higher percentage of those who reported their pre-course occupational information as fair or poor gave such reasons as not accepted as apprentice, insufficiently qualified, disliked the type of work involved, earnings were too low, poor advancement opportunity, and had no plans to work in field. Once again, the data hints that student traits related to motivational factors underlie the slight but consistent differences found. These differences are of no practical significance. They do suggest that we need a more extensive technique than a questionnaire if we are to get a better understanding of the student characteristics that influence the post-high school employment and educational outcomes experienced by the graduate.

TABLE 3.23. RELATION BETWEEN METHODS USED TO GET FIRST JOB AND TIME REQUIRED TO GET FIRST JOB.

METHOD USED TO GET FIRST FULL TIME JOB AFTER HIGH SCHOOL	WEEKS REQUIRED TO OBTAIN FIRST FULL-TIME JOB														
	IMMED-IATELY		1 - 2 WEEKS		3 - 4 WEEKS		5 - 6 WEEKS		7 - 8 WEEKS		OVER 2 MONTHS		TOTAL CASES		MEAN WEEKS
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
ALREADY HAD JOB	1265	50.2	187	15.6	35	5.6	9	3.1	5	1.6	33	4.0	1534	26.5	.6
THRU VOCATIONAL TEACHER . . .	276	11.0	122	10.2	34	5.4	9	3.1	8	2.6	22	2.6	471	8.2	1.4
THRU SCHOOL COUNSELOR	93	3.7	60	5.0	26	4.1	12	4.2	7	2.3	9	1.1	207	3.6	2.0
THRU SCHOOL PLACEMENT	225	8.9	133	11.1	46	7.3	16	5.6	15	4.9	34	4.1	469	8.1	2.1
OTHER SCHOOL PERSONNEL. . . .	35	1.4	27	2.2	12	1.9	2	0.7	5	1.6	18	2.2	99	1.7	3.2
PRIVATE EMPLOYMENT AGENCY . .	42	1.7	56	4.7	41	6.5	21	7.3	20	6.5	83	9.9	263	4.6	5.7
STATE EMPLOYMENT AGENCY . . .	39	1.5	38	3.2	49	7.8	24	8.3	22	7.2	72	8.6	244	4.2	5.7
PARENT OR RELATIVE.	75	3.0	89	7.4	48	7.6	25	8.7	25	8.2	71	8.5	333	5.8	4.4
FRIEND.	158	6.3	157	13.1	119	18.9	68	23.6	63	20.6	157	18.8	722	12.5	4.6
ON MY OWN, NO HELP.	312	12.4	331	27.6	220	34.9	102	35.4	136	44.4	336	40.2	1437	24.9	4.7
TOTAL.	2520	100.0	1200	100.0	630	100.0	288	100.0	306	100.0	835	100.0	5779	100.0	3.1

COMMENTARY. Table 3.23 explores the relationship between methods used to get the first full-time job and the time in weeks required to obtain the first job.

First, we notice that those who claimed they already had a job upon graduation do not necessarily begin their job immediately. About 50 percent do, but the other 50 percent start their job at various week intervals after graduation. Indeed, about 4 percent apparently have their last summer vacation before starting full-time employment.

Of those who started immediately, the largest percentage (11%) credited their teacher with getting them their job. For all who credited their teacher, the mean number of weeks required to get the first job was 1.4 weeks. No other single source of placement help did as well.

The data for school counselors shows no relationship with time to get the first job, but it does indicate that counselor efforts do not stop with the end of the school year. Apparently, a small number of students are helped by counselors, school placement services and other school personnel through the summer after graduation.

Employment agencies are inversely related to early placement. This is understandable. Many students seek agency help after other means have failed. About 20 percent of those who required more than two months got their first job through an employment agency. Peer group friends seem to have a similar function. As the weeks slip by a greater percentage of students rely on their friends for jobs. The most frequently used resource is the graduate himself. The percentage who claimed they got their job on their own, without help, is the largest in all time categories, but there is a definite trend. In the end, the graduate must rely upon his own resources. This data indicates why we lose so many graduates for employment in the fields for which trained.

TABLE 3.24. RELATION BETWEEN METHODS USED TO GET FIRST JOB AND RELATEDNESS OF JOB TO VOCATIONAL COURSE TAKEN.

METHOD USED TO GET FIRST FULL TIME JOB AFTER HIGH SCHOOL	RELATEDNESS OF JOB TO VOCATIONAL COURSE STUDIED (FULL-TIME EMPLOYED)									
	SAME OCCUP		HIGHLY RELATED		SLIGHTLY RELATED		COMPLETELY UNRELATED		TOTAL CASES	
	N	%	N	%	N	%	N	%	N	%
ALREADY HAD JOB.	364	24.3	334	22.3	365	24.3	436	29.1	1499	100.0
THRU VOCATIONAL TEACHER . . .	155	33.6	163	35.4	80	17.3	63	13.7	461	100.0
THRU SCHOOL COUNSELOR	44	21.7	54	26.6	59	29.1	46	22.7	203	100.0
THRU SCHOOL PLACEMENT	144	31.3	131	28.5	122	26.5	63	13.7	460	100.0
OTHER SCHOOL PERSONNEL	22	22.4	21	21.4	31	31.6	24	24.5	98	100.0
PRIVATE EMPLOYMENT AGENCY. . .	61	24.3	66	26.3	69	27.5	55	21.9	251	100.0
STATE EMPLOYMENT AGENCY. . . .	33	13.9	53	22.3	58	24.4	94	39.5	238	100.0
PARENT OR RELATIVE	46	14.4	53	16.5	67	21.0	153	48.0	319	100.0
FRIEND	108	15.3	119	16.9	148	21.0	329	46.7	704	100.0
ON MY OWN, NO HELP	270	19.3	272	19.5	354	25.4	499	35.8	1395	100.0
TOTAL	1247	22.2	1266	22.5	1353	24.0	1762	31.3	5628	100.0

COMMENTARY. The data confirms in more detail earlier stated findings (Table 9.8). The percentage of graduates who already had a job upon graduation is not impressively different for the different relatedness categories. However, the acknowledgement of the placement assistance of the vocational teacher comes mainly from those employed in the field (65%). Only 14% of those who acknowledged a vocational teacher's help were employed in a completely unrelated occupation. The explanation may be that (1) vocational teachers are more likely to place the graduates into the field for which trained than out of the field, (2) vocational teachers are more likely to place only those qualified and motivated to enter the field, or (3) those who are qualified and desire work in their field are more likely to solicit the help of their vocational teachers. A similar trend is evidenced for school placement services. Either such services do a better job of placing students in the field for which trained or they concentrate their efforts on the students that are easier to place in the field, i.e. the "better" students.

Notice the trend of the data for state employment agencies, parents and relatives, friends of same age and graduates who relied on their own resources. For each, the smallest percentage are employed in the field for which trained and the greatest percentage are employed in a completely different occupation. We are inclined to believe that school sources are more effective in placing graduates in the field for which trained than non-school sources.

TABLE 3.25. RELATION BETWEEN METHODS USED TO GET FIRST JOB AND REASONS FOR NOT GETTING JOB IN FIELD OF STUDY.

METHOD USED TO GET FIRST FULL-TIME JOB AFTER HIGH SCHOOL	MAIN REASON FOR FIRST FULL-TIME JOB NOT IN FIELD											
	NO JOB IN THE FIELD		NOT ACCEPTED APPREN		NOT QUALI-FIED		DIDN'T LIKE WORK		PAY TOO LOW		NO ADVANCE-MENT	
	N	%	N	%	N	%	N	%	N	%	N	%
ALREADY HAD JOB.	92	17.3	24	21.8	84	21.8	105	32.5	23	23.0	20	24.4
THRU VOCATIONAL TEACHER.	17	3.2	8	7.3	15	3.9	13	4.0	4	4.0	6	7.3
THRU SCHOOL COUNSELOR.	12	2.2	4	3.6	19	4.9	12	3.7	1	1.0	0	0
THRU SCHOOL PLACEMENT.	14	2.6	6	5.4	20	5.2	22	6.8	2	2.0	6	7.3
OTHER SCHOOL PERSONNEL	5	.9	1	.9	2	.5	2	.6	3	3.0	2	2.4
PRIVATE EMPLOYMENT AGENCY.	28	5.3	3	2.7	21	5.4	16	5.0	2	2.0	2	2.4
STATE EMPLOYMENT AGENCY.	39	7.3	10	9.1	20	5.2	13	4.0	4	4.0	1	1.2
PARENT OR RELATIVE	34	6.4	9	8.2	27	7.0	26	8.0	9	9.0	7	8.5
FRIEND	98	18.4	17	15.4	67	17.4	39	12.1	19	19.0	11	13.4
ON MY OWN, NO HELP	193	36.3	28	25.4	110	28.6	75	23.2	33	33.0	27	32.9
TOTAL	532	100.0	110	100.0	385	100.0	323	100.0	100	100.0	82	100.0

COMMENTARY. Table 3.25 explores the possibility of relationships between the main reasons stated by graduates for not getting a job in the field and the methods they used to get their first job. The analysis was quite frankly a fishing expedition for possible relationships that would tell us more about the characteristics of those who did not find employment in their field of study.

With one exception, the table reveals nothing of interest. The exception is the percentage of those who reported that they did not get a job in their field of study because they did not like the work who already had a job upon graduation -- about 32 percent. Apparently, those who know that they do not like the work involved are more active early in looking for [illegible] finding jobs.

In general, we conclude that the two variables are unrelated. It is reassuring that no matter what the reasons cited for not getting a job in the field of study, school personnel do help such students find jobs outside of their field of study. However, the percentages are small. In the main, those employed outside of their field have relied upon parents, relatives, friends and their own resources.

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TABLE 3.25. RELATION BETWEEN METHODS USED TO GET FIRST JOB AND REASONS FOR NOT GETTING JOB IN FIELD OF STUDY. (CON'T.)

METHOD USED TO GET FIRST FULL-TIME JOB AFTER HIGH SCHOOL	BETTER JOB OFFER		NEVER PLAN WORK		OTHER REASON		TOTAL CASES	
	N	%	N	%	N	%	N	%
ALREADY HAD JOB.	81	25.7	80	26.6	219	29.3	728	25.1
THRU VOCATIONAL TEACHER.	7	2.2	12	4.0	43	5.7	125	4.3
THRU SCHOOL COUNSELOR.	9	2.8	4	1.3	24	3.2	85	2.9
THRU SCHOOL PLACEMENT.	21	6.7	17	5.6	52	7.0	160	5.5
OTHER SCHOOL PERSONNEL	5	1.6	9	3.0	16	2.1	45	1.6
PRIVATE EMPLOYMENT AGENCY.	11	3.5	9	3.0	24	3.2	116	4.0
STATE EMPLOYMENT AGENCY.	10	3.2	8	2.6	33	4.4	138	4.8
PARENT OR RELATIVE	25	7.9	21	7.0	47	6.3	205	7.1
FRIEND	59	18.7	54	17.9	98	13.1	462	16.0
ON MY OWN, NO HELP	87	27.6	87	28.9	192	25.7	832	28.7
TOTAL	315	100.0	301	100.0	748	100.0	2896	100.0

TABLE 3.26. HOURLY EARNINGS OF GRADUATES IN AND OUT OF FIELD OF STUDY CLASSIFIED BY TYPE OF PROGRAM COMPLETED.

PRESENT HOURLY PAY RATE (BEFORE DEDUCTIONS)	TRADE INDUST IN N	TRADE INDUST IN %	TRADE INDUST OUT N	TRADE INDUST OUT %	TECH IN N	TECH IN %	TECH OUT N	TECH OUT %	DISTRB EDUC IN N	DISTRB EDUC IN %	DISTRB EDUC OUT N	DISTRB EDUC OUT %	AG EDUC IN N	AG EDUC IN %	AG EDUC OUT N	AG EDUC OUT %
1.00 - 1.49	25	3.3	40	3.1	0	0	1	1.2	2	1.3	8	2.8	0	0	0	0
1.50 - 1.99	149	19.6	262	20.3	7	19.4	17	20.7	71	44.6	105	37.1	1	11.1	5	22.7
2.00 - 2.49	256	33.7	440	34.1	11	30.6	36	43.9	46	28.9	111	39.2	2	22.2	8	36.4
2.50 - 2.99	181	23.8	278	21.5	6	16.7	18	21.9	26	16.3	37	13.1	6	66.7	5	22.7
3.00 - 3.49	93	12.2	140	10.8	8	22.2	5	6.1	7	4.4	10	3.5	0	0	1	4.5
3.50 - 3.99	33	4.3	79	6.1	3	8.3	2	2.4	4	2.5	7	2.5	0	0	2	9.1
4.00 AND OVER	23	3.0	53	4.1	1	2.8	3	3.7	3	1.9	5	1.8	0	0	1	4.5
TOTAL.	760	100.0	1292	100.0	36	100.0	82	100.0	159	100.0	283	100.0	9	100.0	22	100.0
MEAN.	2.49		2.51		2.64		2.41		2.22		2.21		2.53		2.52	

COMMENTARY. Table 3.26 presents a comparison of earnings data within each program field for graduates in and out of the field. Earlier, we concluded that there are no substantial hourly rate differences between those who were employed in their field and those employed out of their field, within the first six months after high school. The data in table 3.26 confirms the earlier conclusion for the trade and industrial, distributive education, business education, agriculture and health programs. However, a substantial earning difference is revealed for the technical and gainful home economics programs. In the former, those in the field for which trained earn an average 23 cents per hour more than those out of the field. That is about $9.20 a week more. The situation is reversed for gainful home economics. Those in the field earn a mean 49 cents per hour less than those out of the field. That is about $19.60 a week less. This also tells why gainful home economics has the poorest placement in the field performance of any program area. Even the disadvantaged who are often counseled into such programs can earn more money out of their field.

Our main conclusion stands. Excluding the technical program area, graduates who enter the field for which trained have no earnings advantage over those who don't during the first six months out of school. The difference in favor of those in the field only shows up after two years or so (1).

TABLE CONTINUED NEXT PAGE

TABLE 3.26. HOURLY EARNINGS OF GRADUATES IN AND OUT OF FIELD OF STUDY CLASSIFIED BY TYPE OF PROGRAM COMPLETED. (CON'T.)

PRESENT HOURLY PAY RATE (BEFORE DEDUCTIONS)	BUSS EDUC IN N	BUSS EDUC IN %	BUSS EUDC OUT N	BUSS EUDC OUT %	HOME ECON IN N	HOME ECON IN %	HOME ECON OUT N	HOME ECON OUT %	HEALTH IN N	HEALTH IN %	HEALTH OUT N	HEALTH OUT %
1.00 - 1.49	21	1.5	38	2.9	4	44.4	0	0	1	2.6	0	0
1.50 - 1.99	336	24.5	378	29.3	4	44.4	21	58.3	5	13.2	3	18.7
2.00 - 2.49	702	51.2	611	47.4	1	11.1	11	30.6	5	13.2	6	37.5
2.50 - 2.99	246	17.9	195	15.1	0	0	2	5.6	17	44.7	2	12.5
3.00 - 3.49	44	3.2	31	2.4	0	0	1	2.8	8	21.0	3	18.7
3.50 - 3.99	14	1.0	16	1.2	0	0	0	0	1	2.6	1	6.2
4.00 AND OVER	9	.7	20	1.5	0	0	1	2.8	1	2.6	1	6.2
TOTAL.	1372	100.0	1289	100.0	9	100.0	36	100.0	38	100.0	16	100.0
MEAN.	2.26		2.22		1.58		2.07		2.68		2.63	

CHAPTER 4. ANALYSIS BY CITY CLASSIFICATION

THE ISSUE

The purpose of organizing the data by size of city in terms of population is to determine whether city size and therefore indirectly school district size is related to the follow-up survey findings. Each table herein presented has been discussed under its equivalent topic heading in Chapter 3. In addition, a brief summary of the table highlight appears on each table for the reader who wants a quick focus on the conclusions drawn from each table.

SUMMARY OF FINDINGS

A summary of the findings in terms of city classification differences is listed below:

TABLE	TITLE	DIFFERENCE
4.1	Order of Choice for Vocational Course Taken	None
4.2	Sources of Influence on Vocational Course Selection	None
4.3	Occupational Information at Time of Course Choice	None
4.4	Plans to Work in Occupation After High School	None
4.5.1	Present Status of Class of '70 Graduates	Substantial
4.5.2	Present Status of Class of '70 (Multiple Response)	Substantial
4.6	Stability of Employment with First Employer	None
4.7.1	Time Required to Find First Job	None
4.7.2	Steadiness of Job-Hunting Prior First Job	None
4.8	Methods Used to Obtain First Full-Time Job	None
4.10	Relation of Present Job to Vocational Course	None
4.11	Adequacy of Vocational Training for Present Job	None
4.12	Reasons for Present Job Not Being in Field of Study	None
4.13	Hourly Earnings on Present Full-Time Job	Significant
4.14	Relation of Present Studies to Vocational Course	None
4.15	Discussion of Post-High School Education with Counselor	None
4.16	Present Residence of Class of '70 Graduates	None

TABLE 4.1 ORDER OF CHOICE OF VOCATIONAL COURSE TAKEN (ALL VOCATIONAL GRADUATES)

DID YOU GET TO TAKE THE COURSE OF YOUR 1ST, 2ND OR 3RD CHOICE	TOTAL GRAD-UATES N	TOTAL GRAD-UATES P	CLASS 1 CITIES N	CLASS 1 CITIES P	CLASS 2 CITIES N	CLASS 2 CITIES P	CLASS 3 CITIES N	CLASS 3 CITIES P
FIRST CHOICE	11135	78.1	3390	78.2	5015	77.8	2730	78.6
SECOND CHOICE	1509	10.6	494	11.4	673	10.4	342	9.8
THIRD CHOICE	407	2.9	145	3.3	163	2.5	99	2.8
NO CHOICE AVAILABLE	1206	8.5	305	7.0	598	9.3	303	8.7
TOTAL	14257	100.0	4334	100.0	6449	100.0	3474	100.0

SUMMARY

1. About 22 percent are not getting the vocational course of first choice.
2. The problem is the same in all three classes of cities. There is no significant difference between the three classes of cities.

TABLE 4.2 SOURCES OF INFLUENCE ON VOCATIONAL COURSE SELECTION (ALL VOCATIONAL GRADUATES)

ASIDE FROM YOURSELF, WHO INFLUENCED YOUR VOCATIONAL COURSE CHOICE THE MOST	TOTAL GRADUATES		CLASS 1 CITIES		CLASS 2 CITIES		CLASS 3 CITIES	
	N	P	N	P	N	P	N	P
GUIDANCE COUNSELOR	2132	15.3	484	11.5	1124	17.8	524	15.5
VOCATIONAL TEACHER	1858	13.4	666	15.8	762	12.1	430	12.7
OTHER SCHOOL PERSONNEL	681	4.9	245	5.8	308	4.9	128	3.8
PARENTS	3698	26.6	1143	27.1	1665	26.4	890	26.3
BROTHER / SISTER	931	6.7	289	6.8	421	6.7	221	6.5
RELATIVE / FAMILY FRIEND	1244	8.9	384	9.1	558	8.8	302	8.9
FRIENDS OF YOUR AGE GROUP	1998	14.4	623	14.8	906	14.4	469	13.9
SOMEONE OTHER THAN ABOVE	1371	9.9	388	9.2	566	9.0	417	12.3
TOTAL	13913	100.0	4222	100.0	6310	100.0	3381	100.0

SUMMARY

1. Only 34 percent reported school personnel influenced their vocational course selection the most. About 66 percent acknowledged non-school sources of influence.
2. The differences between the three classifications of cities are not significant.

TABLE 4.3 INFORMATION ABOUT OCCUPATION AT TIME OF COURSE CHOICE (ALL VOCATIONAL GRADUATES)

HOW WELL INFORMED WERE YOU ABOUT THE OCCUPATION WHEN YOU MADE YOUR COURSE CHOICE	TOTAL GRAD-UATES		CLASS 1 CITIES		CLASS 2 CITIES		CLASS 3 CITIES	
	N	P	N	P	N	P	N	P
EXCELLENT INFORMATION	2434	16.8	840	18.9	1031	15.7	563	16.1
GOOD INFORMATION	6897	47.6	2075	46.8	3193	48.7	1629	46.6
FAIR INFORMATION	4036	27.9	1152	26.0	1847	28.2	1037	29.7
POOR INFORMATION	1117	7.7	367	8.3	484	7.4	266	7.6
TOTAL	14484	100.0	4434	100.0	6555	100.0	3495	100.0

SUMMARY

1. About 35 percent reported their precourse occupational information was only fair or poor. Only 17 percent felt they had excellent information about the occupation.
2. No significant differences between the three classifications of cities.

TABLE 4.4 PLANS TO WORK IN FIELD AT TIME OF COURSE CHOICE (ALL VOCATIONAL GRADUATES)

DID YOU PLAN TO WORK IN THAT OCCUPATION WHEN YOU SELECTED YOUR HIGH SCHOOL COURSE	TOTAL GRAD-UATES N	TOTAL GRAD-UATES P	CLASS 1 CITIES N	CLASS 1 CITIES P	CLASS 2 CITIES N	CLASS 2 CITIES P	CLASS 3 CITIES N	CLASS 3 CITIES P
YES, DEFINITELY	5609	39.1	1816	41.3	2564	39.6	1229	35.6
YES, BUT NOT DEFINITE	6656	46.4	1973	44.9	3009	46.4	1674	48.4
NO, BUT NOT DEFINITE	1482	10.3	426	9.7	646	10.0	410	11.9
NO, DEFINITELY	585	4.1	182	4.1	260	4.0	143	4.1
TOTAL	14332	100.0	4397	100.0	6479	100.0	3456	100.0

SUMMARY

1. About 39 percent of graduates definitely plan to work in the occupation when they select this high school course. Another 46 percent reported yes, but not definite.
2. About 14 percent did not plan to work in the occupation studied. Only 4 percent were definite negatives.
3. No significant differences between classes of cities.

TABLE 45.1 PRESENT STATUS OF CLASS OF 70 GRADUATES (ALL VOCATIONAL GRADUATES)

WHAT IS YOUR PRESENT STATUS	TOTAL GRAD-UATES N	TOTAL GRAD-UATES P	CLASS 1 CITIES N	CLASS 1 CITIES P	CLASS 2 CITIES N	CLASS 2 CITIES P	CLASS 3 CITIES N	CLASS 3 CITIES P
EMPLOYED FT, NO COLLEGE/SCHOOL	5981	38.3	1754	37.5	2800	39.3	1427	37.3
EMPLOYED FT, COLLEGE FULL-TIME	86	.6	23	.5	34	.5	29	.8
EMPLOYED FT, COLLEGE PART-TIME	322	2.1	93	2.0	153	2.1	76	2.0
EMPLOYED FT, SCHOOL FULL-TIME	34	.2	12	.3	17	.2	5	.1
EMPLOYED FT, SCHOOL PART-TIME	273	1.7	84	1.8	133	1.9	56	1.5
EMPLOYED FT, TOTAL	6696	42.8	1966	42.1	3137	44.0	1593	41.7
EMPLOYED PT, NO COLLEGE/SCHOOL	582	3.7	158	3.4	289	4.1	135	3.5
EMPLOYED PT, COLLEGE FULL-TIME	1072	6.9	312	6.7	408	5.7	352	9.2
EMPLOYED PT, COLLEGE PART-TIME	199	1.3	57	1.2	88	1.2	54	1.4
EMPLOYED PT, SCHOOL FULL-TIME	125	.8	30	.6	63	.9	32	.8
EMPLOYED PT, SCHOOL PART-TIME	82	.5	19	.4	51	.7	12	.3
EMPLOYED PT, TOTAL	2060	13.2	576	12.3	899	12.6	585	15.3
UNEMPLOYED,L,NO COLLEGE/SCHOOL	1850	11.8	484	10.4	952	13.3	414	10.8
UNEMPLOYED,L,COLLEGE FULL-TIME	494	3.2	161	3.4	221	3.1	112	2.9
UNEMPLOYED,L,COLLEGE PART-TIME	121	.8	30	.6	64	.9	27	.7
UNEMPLOYED,L,SCHOOL FULL-TIME	86	.6	21	.4	48	.7	17	.4
UNEMPLOYED,L,SCHOOL PART-TIME	84	.5	20	.4	43	.6	21	.5
UNEMPLOYED,L,TOTAL	2635	16.9	715	15.3	1328	18.6	591	15.5
UNEMPLOYD,NL,NO COLLEGE/SCHOOL	278	1.8	66	1.4	137	1.9	75	2.0
UNEMPLOYD,NL,COLLEGE FULL-TIME	2381	15.2	933	20.0	830	11.6	618	16.2
UNEMPLOYD,NL,COLLEGE PART-TIME	96	.6	28	.6	44	.6	24	.6
UNEMPLOYD,NL,SCHOOL FULL-TIME	360	2.3	121	2.6	170	2.4	69	1.8
UNEMPLOYD,NL,SCHOOL PART-TIME	81	.5	14	.3	45	.6	22	.6
UNEMPLOYD,NL,TOTAL	3196	20.5	1162	24.9	1226	17.2	808	21.1
MILITARY SERVICE	845	5.4	207	4.4	444	6.2	194	5.1
OTHER THAN ABOVE	196	1.3	46	1.0	99	1.4	51	1.3
TOTAL	15628	100.0	4673	100.0	7133	100.0	3822	100.0

SUMMARY

1. About 43% were employed full-time, 13% were employed part-time, 17% were unemployed and looking for work, and 20% were not employed and not looking mainly because of enrollment in higher education.
2. There are no impressive differences between the three classifications of cities.

TABLE 4.5.2 PRESENT STATUS OF CLASS OF 70 GRADUATES (ALL VOCATIONAL GRADUATES)

WHAT IS YOUR PRESENT STATUS (MULTIPLE RESPONSES)	TOTAL GRAD-UATES		CLASS 1 CITIES		CLASS 2 CITIES		CLASS 3 CITIES	
	N	P	N	P	N	P	N	P
EMPLOYED FULL-TIME	6696	42.8	1966	42.1	3137	44.0	1593	41.7
EMPLOYED PART-TIME	2060	13.2	576	12.3	899	12.6	585	15.3
UNEMPLOYED, LOOKING FOR WORK..	2635	16.9	716	15.3	1328	18.6	591	15.5
UNEMPLOYED, NOT LOOKING	868	5.6	292	6.2	356	5.0	220	5.8
COLLEGE FULL-TIME	4033	25.8	1429	30.6	1493	20.9	1111	29.1
COLLEGE PART-TIME	738	4.7	208	4.5	349	4.9	181	4.7
SCHOOL FULL-TIME	605	3.9	184	3.9	298	4.2	123	3.2
SCHOOL PART-TIME	520	3.3	137	2.9	272	3.8	111	2.9
MILITARY SERVICE	845	5.4	207	4.4	444	6.2	194	5.1
OTHER THAN ABOVE	196	1.3	46	1.0	99	1.4	51	1.3
TOTAL	15628		4673		7133		3822	

SUMMARY

1. About 43% are employed full-time, 13% are employed part-time, 17% are unemployed and looking for work, 30% are attending college full-time or part-time and 7% are attending school full-time or part-time.
2. With the exception of full-time college attendance, there is relatively little difference in Class of '70 present status between the three classes of cities.

TABLE 4.6 STABILITY WITH FIRST JOB EMPLOYER (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

IS YOUR PRESENT JOB YOUR FIRST JOB SINCE HIGH SCHOOL	TOTAL GRADUATES		CLASS 1 CITIES		CLASS 2 CITIES		CLASS 3 CITIES	
	N	P	N	P	N	P	N	P
YES	4218	71.9	1246	72.7	1939	70.5	1033	73.9
NO	1646	28.1	469	27.3	812	29.5	365	26.1
TOTAL	5864	100.0	1715	100.0	2751	100.0	1398	100.0

SUMMARY

1. The present job was the first job since high school for the great majority of those employed full-time (72%).
2. A large percentage (28%) have within six months after graduation already left their first employer.
3. The differences between the three classes of cities are not impressive.

TABLE 4.7.1 TIME REQUIRED TO OBTAIN FIRST FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

HOW MANY WEEKS AFTER HIGH SCHOOL DID IT TAKE TO GET YOUR FIRST JOB	TOTAL GRAD-UATES N	TOTAL GRAD-UATES P	CLASS 1 CITIES N	CLASS 1 CITIES P	CLASS 2 CITIES N	CLASS 2 CITIES P	CLASS 3 CITIES N	CLASS 3 CITIES P
IMMEDIATELY	2040	38.0	617	39.8	909	36.0	514	39.7
1 - 2 WEEKS	1233	23.0	360	23.2	575	22.8	298	23.0
3 - 4 WEEKS	642	12.0	189	12.2	325	12.0	128	9.9
5 - 6 WEEKS	295	5.5	79	5.1	142	5.6	74	5.7
7 - 8 WEEKS	308	5.7	81	5.2	155	6.1	72	5.6
9 - 10 WEEKS	385	7.2	113	7.3	184	7.3	88	6.8
11 - 12 WEEKS	217	4.0	63	4.1	97	3.8	57	4.4
13 - 14 WEEKS	85	1.6	21	1.4	41	1.6	23	1.7
15 - 16 WEEKS	71	1.3	6	.4	47	1.9	18	1.4
MORE THAN 4 MONTHS	92	1.7	20	1.3	48	1.9	24	1.8
TOTAL	5368	100.0	1549	100.0	2523	100.0	1296	100.0
MEAN WEEKS		3.36		3.07		3.53		3.35

SUMMARY

1. About 38% already had their first job lined up by graduation.
2. About 73% had their job within the first month after high school.
3. About 27% required from 5 weeks to six months to get first job.
4. The basic pattern of data is the same for the three classes of cities.

TABLE 4.7.2 ACTIVITY IN LOOKING FOR A JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

WERE YOU LOOKING FOR A JOB DURING MOST OF THAT TIME	TOTAL GRAD-UATES N	P	CLASS 1 CITIES N	P	CLASS 2 CITIES N	P	CLASS 3 CITIES N	P
YES	1711	43.3	476	41.4	868	46.0	367	40.2
NO	2241	56.7	675	58.6	1019	54.0	547	59.8
TOTAL	3952	100.0	1151	100.0	1887	100.0	914	100.0

SUMMARY

1. About 57% of the graduates reported that they were not looking for a job most of the time between high school and when they started their first job. This suggests that the time required to find the first full-time job can't be interpreted as a full-time, continuous job hunting effort.

2. The differences between the three classes of cities are not impressive.

TABLE 4.8 METHODS USED TO OBTAIN FIRST FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

METHOD USED TO GET FIRST JOB AFTER HIGH SCHOOL	TOTAL GRAD-UATES N	P	CLASS 1 CITIES N	P	CLASS 2 CITIES N	P	CLASS 3 CITIES N	P
ALREADY HAD JOB WITH EMPLOYER	1559	26.6	424	24.7	716	26.1	419	30.0
THRU VOCATIONAL TEACHER	481	8.2	193	11.2	193	7.0	95	6.8
THRU SCHOOL COUNSELOR	208	3.5	45	2.6	123	4.5	40	2.9
THRU SCHOOL PLACEMENT OFFICE..	477	8.1	147	8.6	258	9.4	72	5.2
THRU OTHER SCHOOL PERSONNEL ..	101	1.7	41	2.4	49	1.8	11	.8
PRIVATE EMPLOYMENT AGENCY	266	4.5	100	5.8	116	4.2	50	3.6
STATE EMPLOYMENT AGENCY	246	4.2	60	3.5	125	4.5	61	4.4
THRU PARENT OR RELATIVE	336	5.7	106	6.2	137	5.0	93	6.7
THRU FAMILY/PERSONAL FRIEND ..	728	12.4	203	11.8	348	12.7	177	12.7
ON MY OWN, WITHOUT ANY HELP ..	1458	24.9	397	23.1	683	24.9	378	27.1
TOTAL	5860	100.0	1716	100.0	2748	100.0	1396	100.0

SUMMARY

1. About 27% already had a job lined up prior graduation.
2. Only 22% acknowledged the assistance of school personnel.
3. About 25% report they got their job on their own, without help.
4. Undoubtedly, some of the 27% who already had a job prior graduation obtained their job through school sources.

TABLE 4.10 RELATION OF PRESENT JOB TO VOCATIONAL COURSE (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

HOW RELATED IS YOUR PRESENT JOB TO YOUR HIGH SCHOOL OCCUPATIONAL COURSE	TOTAL GRAD-UATES		CLASS 1 CITIES		CLASS 2 CITIES		CLASS 3 CITIES	
	N	P	N	P	N	P	N	P
SAME OCCUPATION STUDIED	1277	22.2	384	22.8	603	22.3	290	21.2
HIGHLY RELATED	1291	22.4	384	22.8	609	22.5	298	21.8
SLIGHTLY RELATED	1385	24.1	406	24.1	651	24.4	318	23.3
COMPLETELY UNRELATED	1805	31.3	509	30.2	836	30.9	460	33.7
TOTAL	5758	100.0	1683	100.0	2709	100.0	1366	100.0
MEAN RELATEDNESS*		2.35		2.38		2.36		2.31

*The rating scale was as follows: 4 - same occupation studied, 3 - highly related (to occupation studied), 2 - slightly related (to occupation studied), 1 - completely unrelated (to occupation studied).

SUMMARY

1. About 44% of those presently employed full-time are employed in the occupational field of study. That represents 7.4% of the total graduating class. About 31% report employment in an occupation completely unrelated to the occupation studied.

2. No significant differences between the three classes of cities.

TABLE 4.11 ADEQUACY OF TRAINING FOR PRESENT JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME IN FIELD OF STUDY)

HOW WELL DID YOUR HIGH SCHOOL OCCUPATIONAL COURSE PREPARE YOU FOR YOUR PRESENT JOB (GRADUATES EMPLOYED IN FIELD)	TOTAL GRADUATES		CLASS 1 CITIES		CLASS 2 CITIES		CLASS 3 CITIES	
	N	P	N	P	N	P	N	P
EXCELLENT PREPARATION	989	40.1	319	43.0	445	38.4	225	39.8
GOOD PREPARATION	1354	54.9	383	51.7	661	57.0	310	54.9
FAIR PREPARATION	107	4.3	36	4.9	45	3.9	26	4.6
POOR PREPARATION	16	.6	3	.4	9	.8	4	.7
TOTAL	2466	100.0	741	100.0	1160	100.0	565	100.0

SUMMARY

1. The great majority of graduates employed in their field of study rate their vocational training excellent or good.
2. There is no significant difference between the three classes of cities on such ratings.

TABLE 4.12 REASONS FOR PRESENT JOB NOT IN FIELD OF STUDY (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME OUT OF FIELD OF STUDY)

WHAT WAS THE MAIN REASON FOR NOT GETTING PRESENT JOB IN OCCUPATION STUDIED (GRADS NOT EMPLOYED IN FIELD)	TOTAL GRAD-UATES N	P	CLASS 1 CITIES N	P	CLASS 2 CITIES N	P	CLASS 3 CITIES N	P
TRIED, BUT COULD NOT FIND JOB	509	19.3	135	17.9	254	20.4	120	18.8
NOT ACCEPTED AS APPRENTICE ...	100	3.8	31	4.1	53	4.3	16	2.5
NOT SUFFICIENTLY QUALIFIED ...	359	13.6	111	14.7	159	12.8	89	13.9
DID NOT LIKE THAT TYPE WORK ..	304	11.5	87	11.5	141	11.3	76	11.9
EARNINGS TOO LOW IN THAT JOB..	88	3.3	33	4.4	35	2.8	20	3.1
NO ADVANCEMENT OPPORTUNITY ...	68	2.6	27	3.6	33	2.7	8	1.3
BETTER JOB CAME ALONG FIRST ..	292	11.1	82	10.9	145	11.6	65	10.2
NEVER PLANNED TO WORK IN FIELD	265	10.0	75	9.9	118	9.5	72	11.3
REASON OTHER THAN ABOVE	653	24.8	174	23.0	307	24.7	172	27.0
TOTAL	2638	100.0	755	100.0	1245	100.0	638	100.0

SUMMARY

1. About one-fifth of those who do not enter the occupational field for which trained report that they tried but could not find a job.
2. About one-fourth reject employment in their field for motivational factors, such as not liking the type work, earning too low, etc.
3. The basic data pattern is the same for all classes of cities.

TABLE 4.13 HOURLY EARNINGS ON PRESENT FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

WHAT IS YOUR PRESENT HOURLY PAY RATE (BEFORE DEDUCTIONS)	TOTAL GRAD- UATES N	TOTAL GRAD- UATES P	CLASS 1 CITIES N	CLASS 1 CITIES P	CLASS 2 CITIES N	CLASS 2 CITIES P	CLASS 3 CITIES N	CLASS 3 CITIES P
1.00 - 1.49	148	2.6	28	1.8	78	2.9	42	3.1
1.50 - 1.99	1409	25.1	311	19.5	669	25.3	429	31.2
2.00 - 2.49	2334	41.5	662	41.5	1151	43.5	521	37.8
2.50 - 2.99	1064	18.9	365	22.9	479	18.1	220	16.0
3.00 - 3.49	369	6.6	118	7.4	151	5.7	100	7.3
3.50 - 3.99	168	3.0	69	4.3	66	2.5	33	2.4
4.00 AND OVER	130	2.3	44	2.8	54	2.0	32	2.3
TOTAL	5622	100.0	1597	100.0	2648	100.0	1377	100.0
MEAN EARNINGS		2.35		2.45		2.32		2.30

SUMMARY

1. The vocational graduate earns a mean of $2.35 per hour between three and six months after graduation. However, almost 28 percent earned less than $2.00 per hour.
2. Hourly earnings are significantly higher in Class I cities than in either Class II or Class III cities.

TABLE 4,14 RELATION OF PRESENT STUDIES TO HIGH SCHOOL COURSE (VOCATIONALS PRESENTLY ATTENDING COLLEGE OR SCHOOL)

ARE YOUR PRESENT STUDIES OR PLANNED COLLEGE MAJOR RELATED TO YOUR HS OCCUPATIONAL COURSE	TOTAL GRAD-UATES N	TOTAL GRAD-UATES P	CLASS 1 CITIES N	CLASS 1 CITIES P	CLASS 2 CITIES N	CLASS 2 CITIES P	CLASS 3 CITIES N	CLASS 3 CITIES P
YES	3208	57.9	1073	57.5	1335	59.5	800	55.8
NO	2336	42.1	793	42.5	910	40.5	633	44.2
TOTAL	5544	100.0	1866	100.0	2245	100.0	1433	100.0

SUMMARY

1. Of those who go on to college or schools other than college, the majority (58%) plan a major in a field the same as or related to their high school occupational course.
2. There are no significant differences between the three classes of cities.

TABLE 4.15 DISCUSSION OF POST-HIGH SCHOOL EDUCATION WITH COUNSELOR (VOCATIONALS PRESENTLY ATTENDING COLLEGE OR SCHOOL)

DID YOU DISCUSS YOUR COLLEGE OR SCHOOL PLANS WITH YOUR HIGH SCHOOL COUNSELOR	TOTAL GRAD-UATES N	P	CLASS 1 CITIES N	P	CLASS 2 CITIES N	P	CLASS 3 CITIES N	P
YES	3348	60.2	1109	59.5	1329	59.0	910	63.0
NO	2213	39.8	755	40.5	923	41.0	535	37.0
TOTAL	5561	100.0	1864	100.0	2252	100.0	1445	100.0

SUMMARY

1. Of those presently attending college or school, the majority (60%) reported that they had discussed their post-high school education plans with their high school counselor. However, a very large 40 percent reported that they did not discuss such plans with their counselors.

2. The basic data pattern is the same for the three classes of cities.

TABLE 4.16 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (ALL VOCATIONAL GRADUATES)

WHERE ARE YOU NOW LOCATED	TOTAL GRAD-UATES N	TOTAL GRAD-UATES P	CLASS 1 CITIES N	CLASS 1 CITIES P	CLASS 2 CITIES N	CLASS 2 CITIES P	CLASS 3 CITIES N	CLASS 3 CITIES P
SAME CITY AS HIGH SCHOOL	12523	88.3	3771	88.4	5786	90.7	2966	84.0
SAME STATE, DIFFERENT CITY ...	1058	7.5	339	7.9	355	5.6	364	10.3
DIFFERENT STATE	595	4.2	158	3.7	238	3.7	199	5.6
TOTAL	14176	100.0	4268	100.0	6379	100.0	3529	100.0

TABLE 4.16.1 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

WHERE ARE YOU NOW LOCATED (GRADS PRESENTLY EMPLOYED)								
SAME CITY AS HIGH SCHOOL	5181	94.6	1539	95.7	2399	94.4	1243	93.5
SAME STATE, DIFFERENT CITY ...	225	4.1	56	3.5	108	4.3	61	4.6
DIFFERENT STATE	72	1.3	13	.8	33	1.3	26	2.0
TOTAL	5478	100.0	1608	100.0	2540	100.0	1330	100.0

TABLE 4.16.2 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (VOCATIONALS PRESENTLY ATTENDING COLLEGE OR SCHOOL)

WHERE ARE YOU NOW LOCATED (ATTENDING COLLEGE/SCHOOL)								
SAME CITY AS HIGH SCHOOL	4647	81.1	1528	80.8	2016	85.9	1103	73.8
SAME STATE, DIFFERENT CITY ...	735	12.8	260	13.7	207	8.8	268	17.9
DIFFERENT STATE	351	6.1	103	5.4	125	5.3	123	8.2
TOTAL	5733	100.0	1891	100.0	2348	100.0	1494	100.0

SUMMARY

1. The overwhelming majority of graduates find employment or attend school in the same city in which they attended high school.

CHAPTER 5. ANALYSIS BY INDIVIDUAL CITY

THE ISSUE

The purpose for comparing the follow-up survey data for the individual cities is primarily to determine the magnitude of individual city differences and to permit identification of cities which stand out in terms of specific survey variables. Each table herein presented has been discussed under its equivalent topic heading in Chapter 3. In addition, a single statement of conclusion appears at the bottom of each table.

SUMMARY OF FINDINGS

A summary of the findings in terms of individual city differences is listed below.

TABLE	TITLE	DIFFERENCE
5.1	Order of Choice for Vocational Course Taken	Significant
5.2	Sources of Influence on Vocational Course Selection	Significant
5.3	Occupational Information at Time of Course Choice	Significant
5.4	Plans to Work in Occupation After High School	Significant
5.5.1	Present Status of Class of '70 Graduates	Substantial
5.5.2	Present Status of Class of '70 (Multiple Response)	Substantial
5.6	Stability of Employment with First Employer	Significant
5.7.1	Time Required to Find First Job	Substantial
5.7.2	Steadiness of Job-Hunting Prior First Job	Significant
5.8	Methods Used to Obtain First Full-Time Job	Significant
5.10	Relation of Present Job to Vocational Course	Substantial
5.11	Adequacy of Vocational Training for Present Job	Substantial
5.12	Reasons for Present Job Not Being in Field of Study	Substantial
5.13	Hourly Earnings on Present Full-Time Job	Substantial
5.14	Relation of Present Studies to Vocational Course	Significant
5.15	Discussion of Post-High School Education with Counselor	Significant
5.16.1-3	Present Residence of Class of '70 Graduates	Negligible

TABLE 5.1 ORDER OF CHOICE OF VOCATIONAL COURSE TAKEN (ALL VOCATIONAL GRADUATES)

DID YOU GET TO TAKE THE COURSE OF YOUR 1ST, 2ND OR 3RD CHOICE	FIRST CHOICE		SECOND CHOICE		THIRD CHOICE		NO CHOICE		TOTAL CASES	
	N	P	N	P	N	P	N	P	N	P
CHICAGO	659	73.0	136	15.1	44	4.9	64	7.1	903	100.0
HOUSTON	551	78.9	57	8.2	13	1.9	77	11.0	698	100.0
NEW YORK	1242	83.9	133	9.0	37	2.5	69	4.7	1481	100.0
PHILADELPHIA	938	74.9	168	13.4	51	4.1	95	7.6	1252	100.0
CLASS 1 CITIES	3390	78.2	494	11.4	145	3.3	305	7.0	4334	100.0
ATLANTA	80	69.0	9	7.8	5	4.3	22	19.0	116	100.0
BALTIMORE	1450	81.1	173	9.7	28	1.6	138	7.7	1789	100.0
BOSTON	561	84.7	48	7.3	13	2.0	40	6.0	662	100.0
CLEVELAND	386	77.7	69	13.9	10	2.0	32	6.4	497	100.0
NEW ORLEANS	347	78.5	44	10.0	10	2.3	41	9.3	442	100.0
PITTSBURGH	858	83.0	106	10.3	21	2.0	49	4.7	1034	100.0
SAN FRANCISCO	355	76.7	50	10.8	10	2.2	48	10.4	463	100.0
SEATTLE	185	76.1	14	5.8	3	1.2	41	16.9	243	100.0
ST LOUIS	462	64.5	88	12.3	34	4.7	132	18.4	716	100.0
WASHINGTON DC	331	68.0	72	14.8	29	6.0	55	11.3	487	100.0
CLASS 2 CITIES	5015	77.8	673	10.4	163	2.5	598	9.3	6449	100.0
BIRMINGHAM	124	78.0	12	7.5	4	2.5	19	11.9	159	100.0
LOUISVILLE	369	84.2	33	7.5	9	2.1	27	6.2	438	100.0
MINNEAPOLIS	115	74.2	24	15.5	11	7.1	5	3.2	155	100.0
NEWARK	216	68.8	67	21.3	8	2.5	23	7.3	314	100.0
ESSEX COUNTY	162	73.6	40	18.2	11	5.0	7	3.2	220	100.0
NORFOLK	178	79.8	19	8.5	8	3.6	18	8.1	223	100.0
OMAHA	361	77.5	43	9.2	10	2.1	52	11.2	466	100.0
PORTLAND	691	81.2	50	5.9	20	2.4	90	10.6	851	100.0
ROCHESTER	514	79.3	54	8.3	18	2.8	62	9.6	648	100.0
CLASS 3 CITIES	2730	78.6	342	9.8	99	2.8	303	8.7	3474	100.0
ALL CITIES COMBINED	11135	78.1	1509	10.6	407	2.9	1206	8.5	14257	100.0

SUMMARY

1. There are significant differences in percentages of graduates reporting getting the course of their first choice.
2. The differences are less impressive than the basic similarity of data for most cities.

TABLE 5.2 SOURCES OF INFLUENCE ON VOCATIONAL COURSE SELECTION (ALL VOCATIONAL GRADUATES)

ASIDE FROM YOURSELF, WHO INFLUENCED YOUR VOCATIONAL COURSE CHOICE THE MOST	GUIDAN COUNSL		VOCAT TEACH		OTHER SCHOOL PERSNL		PARENT		BROTHR SISTER		RELAT FRIEND		PEER/ FRIEND		OTHER PERSON		TOTAL CASES
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N
CHICAGO	83	9.3	198	22.2	36	4.0	227	25.4	51	5.7	72	8.1	140	15.7	86	9.6	893
HOUSTON	60	9.0	134	20.1	23	3.4	157	23.5	40	6.0	52	7.8	123	18.4	78	11.7	667
NEW YORK	188	13.2	176	12.4	92	6.5	365	25.7	107	7.5	164	11.5	202	14.2	128	9.0	1422
PHILADELPHIA	153	12.3	158	12.7	94	7.6	394	31.8	91	7.3	96	7.7	158	12.7	96	7.7	1240
CLASS 1 CITIES	484	11.5	666	15.8	245	5.8	1143	27.1	289	6.8	384	9.1	623	14.8	388	9.2	4222
ATLANTA	14	12.0	41	35.0	11	9.4	14	12.0	4	3.4	7	6.0	14	12.0	12	10.3	117
BALTIMORE	324	18.7	115	6.6	95	5.5	468	27.0	122	7.0	167	9.6	295	17.0	150	8.6	1736
BOSTON	76	11.7	51	7.9	31	4.8	241	37.2	37	5.7	48	7.4	113	17.4	51	7.9	648
CLEVELAND	107	22.5	67	14.1	22	4.6	103	21.6	36	7.6	37	7.8	68	14.3	36	7.6	476
NEW ORLEANS	64	14.7	75	17.2	17	3.9	110	25.3	30	6.9	34	7.8	77	17.7	28	6.4	435
PITTSBURGH	235	22.8	140	13.6	26	2.5	272	26.4	65	6.3	88	8.5	120	11.6	86	8.3	1032
SAN FRANCISCO	63	14.4	49	11.2	25	5.7	130	29.7	41	9.4	27	6.2	58	13.2	45	10.3	438
SEATTLE	21	8.9	34	14.5	15	6.4	62	26.4	12	5.1	16	6.8	35	14.9	40	17.0	235
ST LOUIS	141	19.9	118	16.7	34	4.8	159	22.5	42	5.9	59	8.3	76	10.7	79	11.2	708
WASHINGTON DC	79	16.3	72	14.8	32	6.6	106	21.9	32	6.6	75	15.5	50	10.3	39	8.0	485
CLASS 2 CITIES	1124	17.8	762	12.1	308	4.9	1665	26.4	421	6.7	558	8.8	906	14.4	566	9.0	6310
BIRMINGHAM	12	7.5	31	19.3	6	3.7	38	23.6	9	5.6	12	7.5	38	23.6	15	9.3	161
LOUISVILLE	32	7.4	85	19.5	13	3.0	104	23.9	32	7.4	46	10.6	74	17.0	49	11.3	435
MINNEAPOLIS	33	22.3	3	2.0	9	6.1	50	33.8	19	12.8	15	10.1	8	5.4	11	7.4	148
NEWARK	101	31.3	23	7.1	16	5.0	78	24.1	17	5.3	25	7.7	33	10.2	30	9.3	323
ESSEX COUNTY	40	18.6	24	11.2	11	5.1	58	27.0	13	6.0	31	14.4	23	10.7	15	7.0	215
NORFOLK	30	13.5	32	14.3	7	3.1	59	26.5	16	7.2	30	13.5	28	12.6	21	9.4	223
OMAHA	70	15.3	68	14.9	12	2.6	141	30.9	20	4.4	25	5.7	63	13.8	57	12.5	457
PORTLAND	79	9.8	90	11.2	33	4.1	248	30.7	49	6.1	64	7.9	110	13.6	134	16.6	807
ROCHESTER	127	20.8	74	12.1	21	3.4	114	18.6	46	7.5	53	8.7	92	15.0	85	13.9	612
CLASS 3 CITIES	524	15.5	430	12.7	128	3.8	890	26.3	221	6.5	302	8.9	469	13.9	417	12.3	3381
ALL CITIES COMBINED	2132	15.3	1858	13.4	681	4.9	3698	26.6	931	6.7	1244	8.9	1998	14.4	1371	9.9	13913

SUMMARY

1. There are significant differences between the cities in terms of percentage of school personnel acknowledged by graduates as the most important influence on vocational course selection. The similarities, however, are more impressive than the differences.

TABLE 5.3 INFORMATION ABOUT OCCUPATION AT TIME OF COURSE CHOICE (ALL VOCATIONAL GRADUATES)

HOW WELL INFORMED WERE YOU ABOUT THE OCCUPATION WHEN YOU MADE YOUR COURSE CHOICE	EXCEL-LENT		GOOD		FAIR		POOR		TOTAL CASES	
	N	P	N	P	N	P	N	P	N	P
CHICAGO	173	18.6	449	48.3	240	25.8	68	7.3	930	100.0
HOUSTON	183	26.3	319	45.9	140	20.1	53	7.6	695	100.0
NEW YORK	257	17.0	727	48.0	396	26.1	135	8.9	1515	100.0
PHILADELPHIA	227	17.5	580	44.8	376	29.1	111	8.6	1294	100.0
CLASS 1 CITIES	840	18.9	2075	46.8	1152	26.0	367	8.3	4434	100.0
ATLANTA	23	20.4	51	45.1	31	27.4	8	7.1	113	100.0
BALTIMORE	262	14.6	866	48.3	544	30.3	121	6.7	1793	100.0
BOSTON	129	18.7	357	51.8	165	23.9	38	5.5	689	100.0
CLEVELAND	66	13.1	237	47.2	145	28.9	54	10.8	502	100.0
NEW ORLEANS	78	17.6	242	54.6	104	23.5	19	4.3	443	100.0
PITTSBURGH	152	14.2	535	50.1	292	27.4	88	8.2	1067	100.0
SAN FRANCISCO	56	11.8	208	44.0	161	34.0	48	10.1	473	100.0
SEATTLE	47	19.3	96	39.5	76	31.3	24	9.9	243	100.0
ST LOUIS	105	14.5	357	49.2	210	28.9	54	7.4	726	100.0
WASHINGTON DC	113	22.3	244	48.2	119	23.5	30	5.9	506	100.0
CLASS 2 CITIES	1031	15.7	3193	48.7	1847	28.2	484	7.4	6555	100.0
BIRMINGHAM	26	16.0	78	48.1	47	29.0	11	6.8	162	100.0
LOUISVILLE	89	20.2	202	45.9	126	28.6	23	5.2	440	100.0
MINNEAPOLIS	21	13.5	55	35.5	56	36.1	23	14.8	155	100.0
NEWARK	53	16.0	165	49.8	92	27.8	21	6.3	331	100.0
ESSEX COUNTY	31	14.0	103	46.4	74	33.3	14	6.3	222	100.0
NORFOLK	38	17.0	121	54.0	49	21.9	16	7.1	224	100.0
OMAHA	71	15.0	223	47.2	144	30.5	34	7.2	472	100.0
PORTLAND	142	16.8	378	44.7	244	28.9	81	9.6	845	100.0
ROCHESTER	92	14.3	304	47.2	205	31.8	43	6.7	644	100.0
CLASS 3 CITIES	563	16.1	1629	46.6	1037	29.7	266	7.6	3495	100.0
ALL CITIES COMBINED	2434	16.8	6897	47.6	4036	27.9	1117	7.7	14484	100.0

SUMMARY

1. While there are some individual city differences, the response pattern similarity is most impressive. All cities seem to have a career orientation and information problem.

TABLE 5.4 PLANS TO WORK IN FIELD AT TIME OF COURSE CHOICE (ALL VOCATIONAL GRADUATES)

DID YOU PLAN TO WORK IN THAT OCCUPATION WHEN YOU SELECTED YOUR HIGH SCHOOL COURSE	YES, DEFINITELY		YES, INDEFINITE		NO, INDEFINITE		NO, DEFINITELY		TOTAL CASES	
	N	P	N	P	N	P	N	P	N	P
CHICAGO	333	36.3	426	46.5	119	13.0	39	4.3	917	100.0
HOUSTON	253	36.6	326	47.2	78	11.3	34	4.9	691	100.0
NEW YORK	693	46.0	650	43.2	112	7.4	50	3.3	1505	100.0
PHILADELPHIA	537	41.8	571	44.5	117	9.1	59	4.6	1284	100.0
CLASS 1 CITIES	1816	41.3	1973	44.9	426	9.7	182	4.1	4397	100.0
ATLANTA	39	34.8	52	46.4	17	15.2	4	3.6	112	100.0
BALTIMORE	749	42.2	788	44.4	153	8.6	83	4.7	1773	100.0
BOSTON	251	36.9	315	46.3	81	11.9	34	5.0	681	100.0
CLEVELAND	182	36.6	237	47.7	51	10.3	27	5.4	497	100.0
NEW ORLEANS	205	46.7	180	41.0	43	9.8	11	2.5	439	100.0
PITTSBURGH	419	39.7	513	48.6	91	8.6	32	3.0	1055	100.0
SAN FRANCISCO	161	34.4	248	53.0	40	8.5	19	4.1	468	100.0
SEATTLE	72	30.1	113	47.3	47	19.7	7	2.9	239	100.0
ST LOUIS	254	35.6	346	48.5	86	12.0	28	3.9	714	100.0
WASHINGTON DC	232	46.3	217	43.3	37	7.4	15	3.0	501	100.0
CLASS 2 CITIES	2564	39.6	3009	46.4	646	10.0	260	4.0	6479	100.0
BIRMINGHAM	57	35.6	73	45.6	24	15.0	6	3.7	160	100.0
LOUISVILLE	172	39.4	214	49.1	37	8.5	13	3.0	436	100.0
MINNEAPOLIS	57	37.3	71	46.4	15	9.8	10	6.5	153	100.0
NEWARK	119	36.3	164	50.0	27	8.2	18	5.5	328	100.0
ESSEX COUNTY	107	48.9	90	41.1	12	5.5	10	4.6	219	100.0
NORFOLK	93	42.3	103	46.8	20	9.1	4	1.8	220	100.0
OMAHA	118	25.4	254	54.7	77	16.6	15	3.2	464	100.0
PORTLAND	262	31.4	396	47.5	132	15.8	44	5.3	834	100.0
ROCHESTER	244	38.0	309	48.1	66	10.3	23	3.6	642	100.0
CLASS 3 CITIES	1229	35.6	1674	48.4	410	11.9	143	4.1	3456	100.0
ALL CITIES COMBINED	5609	39.1	6656	46.4	1482	10.3	585	4.1	14332	100.0

SUMMARY

1. Although there are significant individual city differences, the basic pattern of the data is the same for all cities.

TABLE 5.5.1 PRESENT STATUS OF CLASS OF 70 GRADUATES (ALL VOCATIONAL GRADUATES)

WHAT IS YOUR PRESENT STATUS	EMP F-T NO COLL SCHOOL N	P	EMP F-T COLLEGE FULL-TM N	P	EMP F-T COLLEGE PART-TM N	P	EMP F-T SCHOOL FULL-TM N	P	EMP F-T SCHOOL PART-TM N	P	EMP F-T TOTAL N	P
CHICAGO	362	37.7	5	.5	59	6.1			20	2.1	446	46.4
HOUSTON	259	33.7	7	.9	8	1.0	4	.5	7	.9	285	37.1
NEW YORK	470	29.7	11	.7	14	.9	1	.1	16	1.0	512	32.3
PHILADELPHIA	663	48.8			12	.9	7	.5	41	3.0	723	53.2
CLASS 1 CITIES	1754	37.5	23	.5	93	2.0	12	.3	84	1.8	1966	42.1
ATLANTA	45	34.4			2	1.5	1	.8			48	36.6
BALTIMORE	872	44.9	12	.6	32	1.6	3	.2	34	1.7	953	49.0
BOSTON	399	52.3			14	1.8			25	3.3	438	57.4
CLEVELAND	240	43.5	1	.2	18	3.3	1	.2	19	3.4	279	50.5
NEW ORLEANS	167	34.8	6	1.2	8	1.7	1	.2	5	1.0	187	39.0
PITTSBURGH	479	42.7	1	.1	11	1.0	7	.6	19	1.7	517	46.1
SAN FRANCISCO	100	19.7	3	.6	10	2.0	1	.2	2	.4	116	22.8
SEATTLE	42	15.1	2	.7	10	3.6			2	.7	56	20.1
ST LOUIS	252	30.3	4	.5	26	3.1	1	.1	14	1.7	297	35.7
WASHINGTON DC	204	38.9	5	1.0	22	4.2	2	.4	13	2.5	246	46.9
CLASS 2 CITIES	2800	39.3	34	.5	153	2.1	17	.2	133	1.9	3137	44.0
BIRMINGHAM	37	21.4	2	1.2	1	.6					40	23.1
LOUISVILLE	207	44.6	3	.6	5	1.1	1	.2	8	1.7	224	48.3
MINNEAPOLIS	86	52.4	1	.6	2	1.2			4	2.4	93	56.7
NEWARK	158	44.5	1	.3	9	2.5			8	2.3	176	49.6
ESSEX COUNTY	108	45.0			3	1.2	1	.4	3	1.2	115	47.9
NORFOLK	95	37.8	1	.4	1	.4	1	.4	2	.8	100	39.8
OMAHA	231	45.6	8	1.6	5	1.0	1	.2	9	1.8	254	50.1
PORTLAND	238	24.8	11	1.1	24	2.5	1	.1	8	.8	282	29.4
ROCHESTER	267	37.7	2	.3	26	3.7			14	2.0	309	43.6
CLASS 3 CITIES	1427	37.3	29	.8	76	2.0	5	.1	56	1.5	1593	41.7
ALL CITIES COMBINED	5981	38.3	86	.6	322	2.1	34	.2	273	1.7	6696	42.8

SUMMARY

1. There are substantial individual city differences in terms of Class of '70 present status for employment and higher education. Consult table for details.

TABLE 5.5.1 PRESENT STATUS OF CLASS OF 70 GRADUATES CONTINUED (ALL VOCATIONAL GRADUATES)

WHAT IS YOUR PRESENT STATUS	EMP P-T NO COLL SCHOOL N	EMP P-T NO COLL SCHOOL P	EMP P-T COLLEGE FULL-TM N	EMP P-T COLLEGE FULL-TM P	EMP P-T COLLEGE PART-TM N	EMP P-T COLLEGE PART-TM P	EMP P-T SCHOOL FULL-TM N	EMP P-T SCHOOL FULL-TM P	EMP P-T SCHOOL PART-TM. N	EMP P-T SCHOOL PART-TM. P	EMP P-T TOTAL N	EMP P-T TOTAL P
CHICAGO	30	3.1	72	7.5	21	2.2	1	.1			124	12.9
HOUSTON	21	2.7	54	7.0	22	2.9	2	.3	5	.7	104	13.5
NEW YORK	43	3.0	153	9.7	10	.6	7	.4	3	.2	221	14.0
PHILADELPHIA	59	4.3	33	2.4	4	.3	20	1.5	11	.8	127	9.3
CLASS 1 CITIES	158	3.4	312	6.7	57	1.2	30	.6	19	.4	576	12.3
ATLANTA	9	6.9	6	4.6	4	3.1	6	4.6	6	4.6	31	23.7
BALTIMORE	65	3.3	107	5.5	5	.3	3	.2	1	.1	181	9.3
BOSTON	15	2.0	24	3.1	6	.8	13	1.7	7	.9	65	8.5
CLEVELAND	13	2.4	27	4.9	3	.5	4	.7	5	.9	52	9.4
NEW ORLEANS	23	4.8	29	6.0	7	1.5	2	.4			61	12.7
PITTSBURGH	74	6.6	22	2.0	7	.6	30	2.7	21	1.9	154	13.7
SAN FRANCISCO	20	3.9	44	8.7	27	5.3			1	.2	92	18.1
SEATTLE	13	4.7	56	20.1	4	1.4	1	.4			74	26.5
ST LOUIS	33	4.0	64	7.7	15	1.8	1	.1	6	.7	119	14.3
WASHINGTON DC	24	4.6	29	5.5	10	1.9	3	.6	4	.8	70	13.3
CLASS 2 CITIES	289	4.1	408	5.7	88	1.2	63	.9	51	.7	899	12.6
BIRMINGHAM	4	2.3	6	3.5			1	.6	1	.6	12	6.9
LOUISVILLE	23	5.0	15	3.2	2	.4	1	.2			41	8.8
MINNEAPOLIS	6	3.7	11	6.7	1	.6	9	5.5	2	1.2	29	17.7
NEWARK	6	1.7	21	5.9	1	.3	3	.8	2	.6	33	9.3
ESSEX COUNTY	12	5.0	14	5.8			3	1.2			29	12.1
NORFOLK	14	5.6	17	6.8	1	.4	2	.8	1	.4	35	13.9
OMAHA	13	2.6	65	12.8	5	1.0	5	1.0	3	.6	91	17.9
PORTLAND	27	3.9	134	14.0	34	3.5	5	.5	1	.1	211	22.0
ROCHESTER	20	2.8	69	9.7	10	1.4	3	.4	2	.3	104	14.7
CLASS 3 CITIES	135	3.5	352	9.2	54	1.4	32	.8	12	.3	565	15.3
ALL CITIES COMBINED	582	3.7	1072	6.9	199	1.3	125	.8	82	.5	2060	13.2

TABLE 5.5.1 PRESENT STATUS OF CLASS OF 70 GRADUATES CONTINUED (ALL VOCATIONAL GRADUATES)

WHAT IS YOUR PRESENT STATUS	UEMP,L NO COLL SCHOOL N	P	UEMP,L COLLEGE FULL-TM N	P	UEMP,L COLLEGE PART-TM N	P	UEMP,L SCHOOL FULL-TM N	P	UEMP,L SCHOOL PART-TM N	P	UEMP,L TOTAL N	P
CHICAGO	97	10.1	47	4.9	14	1.5	3	.3	3	.3	164	17.1
HOUSTON	69	9.0	31	4.0	5	.7	4	.5	4	.5	113	14.7
NEW YORK	129	8.1	72	4.5	8	.5	5	.3	4	.3	218	13.8
PHILADELPHIA	189	13.9	11	.8	3	.2	9	.7	9	.7	221	16.3
CLASS 1 CITIES	484	10.4	161	3.4	30	.6	21	.4	20	.4	716	15.3
ATLANTA	14	10.7	1	.8			5	3.8	1	.8	21	16.0
BALTIMORE	325	16.7	57	2.9	11	.6	6	.3	9	.5	408	21.0
BOSTON	42	5.5	6	.8			3	.4	5	.7	56	7.3
CLEVELAND	56	10.1	5	.9	2	.4	4	.7	3	.5	70	12.7
NEW ORLEANS	62	12.9	17	3.5	10	2.1	1	.2	4	.8	94	19.5
PITTSBURGH	158	14.1	15	1.3	2	.2	21	1.9	5	.4	201	17.9
SAN FRANCISCO	54	10.6	51	10.0	21	4.1	3	.6	3	.6	132	26.0
SEATTLE	30	10.8	17	6.1	1	.4	1	.4	3	1.1	52	18.6
ST LOUIS	114	13.7	37	4.5	9	1.1	2	.2	6	.7	168	20.2
WASHINGTON DC	97	18.5	15	2.9	8	1.5	2	.4	4	.8	126	24.0
CLASS 2 CITIES	952	13.3	221	3.1	64	.9	48	.7	43	.6	1328	18.6
BIRMINGHAM	33	19.1	17	9.8	3	1.7	2	1.2	3	1.7	58	33.5
LOUISVILLE	76	16.4	4	.9	7	1.5	3	.6	3	.6	93	20.0
MINNEAPOLIS	10	6.1	1	.6			2	1.2	2	1.2	15	9.1
NEWARK	44	12.4	12	3.4	1	.3	4	1.1	2	.6	63	17.7
ESSEX COUNTY	35	14.6	8	3.3	1	.4			1	.4	45	18.7
NORFOLK	29	11.6	8	3.2	1	.4	1	.4	2	.8	41	16.3
OMAHA	23	4.5	13	2.6	1	.2	1	.2	1	.2	39	7.7
PORTLAND	90	9.4	32	3.3	7	.7	2	.2	2	.2	133	13.9
ROCHESTER	74	10.5	17	2.4	6	.8	2	.3	5	.7	104	14.7
CLASS 3 CITIES	414	10.8	112	2.9	27	.7	17	.4	21	.5	591	15.5
ALL CITIES COMBINED	1850	11.8	494	3.2	121	.8	86	.6	84	.5	2635	16.9

TABLE 5.5.1 PRESENT STATUS OF CLASS OF 70 GRADUATES CONTINUED (ALL VOCATIONAL GRADUATES)

WHAT IS YOUR PRESENT STATUS	1 UNP,NL NO COL SCHOOL N	P	2 UNP,NL COLLEG FULL-T N	P	3 UNP,NL COLLEG PART-T N	P	4 UNP,NL SCHOOL FULL-T N	P	5 UNP,NL SCHOOL PART-T N	P	6 UNP,NL TOTAL N	P	7 MILIT-ARY SERVIC N	P	8 OTHER THAN ABOVE N	P	9 TOTAL CASES N
CHICAGO	14	1.5	153	15.9	9	.9	13	1.4			189	19.7	28	2.9	10	1.0	961
HOUSTON	15	2.0	180	23.4	7	.9	17	2.2	3	.4	222	28.9	36	4.7	9	1.2	769
NEW YORK	24	1.5	477	30.1	10	.6	26	1.6	4	.3	541	34.2	83	5.2	9	.6	1584
PHILADELPHIA	13	1.0	123	9.1	2	.1	65	4.8	7	.5	210	15.5	60	4.4	18	1.3	1359
CLASS 1 CITIES	66	1.4	933	20.0	28	.6	121	2.6	14	.3	1162	24.9	207	4.4	46	1.0	4673
ATLANTA	4	3.1	15	11.5			5	3.8	1	.8	25	19.1	5	3.8	1	.8	131
BALTIMORE	51	2.5	166	8.5	3	.2	21	1.1	5	.3	246	12.7	123	6.3	32	1.6	1943
BOSTON	11	1.4	51	6.7	1	.1	36	4.7	8	1.0	107	14.0	80	10.5	17	2.2	763
CLEVELAND	9	1.6	74	13.4	2	.4	4	.7	4	.7	93	16.8	47	8.5	11	2.0	552
NEW ORLEANS	2	.4	74	15.4	5	1.0	10	2.1	4	.8	95	19.8	34	7.1	9	1.9	480
PITTSBURGH	18	1.6	88	7.9	2	.2	68	6.1	11	1.0	187	16.7	49	4.4	13	1.2	1121
SAN FRANCISCO	6	1.2	110	21.7	14	2.8	6	1.2	5	1.0	141	27.8	21	4.1	6	1.2	508
SEATTLE	3	1.1	73	26.2	3	1.1	2	.7			81	29.0	12	4.3	4	1.4	279
ST LOUIS	24	2.9	128	15.4	9	1.1	10	1.2	6	.7	177	21.3	64	7.7	6	.7	831
WASHINGTON DC	9	1.7	51	9.7	5	1.0	8	1.5	1	.2	74	14.1	9	1.7			525
CLASS 2 CITIES	137	1.9	830	11.6	44	.6	170	2.4	45	.6	1226	17.2	444	6.2	99	1.4	7133
BIRMINGHAM	3	1.7	37	21.4			4	2.3	6	3.5	50	28.9	11	6.4	2	1.2	173
LOUISVILLE	13	2.8	53	11.4	4	.9	9	1.9	1	.2	80	17.2	17	3.7	9	1.9	464
MINNEAPOLIS	4	2.4	7	4.3			3	1.8			14	8.5	10	6.1	3	1.8	164
NEWARK	12	3.4	49	13.8	2	.6	6	1.7	3	.8	72	20.3	9	2.5	2	.6	355
ESSEX COUNTY	2	.8	24	10.0			2	.8			28	11.7	23	9.6			240
NORFOLK	7	2.8	29	11.5	2	.8	6	2.4	3	1.2	47	18.7	23	9.2	5	2.0	251
OMAHA	8	1.6	68	13.4	2	.4	16	3.2	4	.8	98	19.3	22	4.3	3	.6	507
PORTLAND	15	1.6	222	23.1	12	1.2	11	1.1	3	.3	263	27.4	53	5.5	18	1.9	960
ROCHESTER	11	1.6	129	18.2	2	.3	12	1.7	2	.3	156	22.0	26	3.7	9	1.3	708
CLASS 3 CITIES	75	2.0	618	16.2	24	.6	69	1.8	22	.6	808	21.1	194	5.1	51	1.3	3822
ALL CITIES COMBINED	278	1.8	2381	15.2	96	.6	360	2.3	81	.5	3195	20.5	845	5.4	196	1.3	15628

KEY 1. UNP, NL, NO COL, SCHOOL = Unemployed, not looking, no college or school attendance.
2. UNP, NL, COLLEG, FULL-T = Unemployed, not looking, attending college full-time.
3. UNP, NL, COLLEG, PART-T = Unemployed, not looking, attending college part-time.
4. UNP, NL, SCHOOL, FULL-T = Unemployed, not looking, attending non-college school full-time.

TABLE 5.5.2 PRESENT STATUS OF CLASS OF 70 GRADUATES (ALL VOCATIONAL GRADUATES)

WHAT IS YOUR PRESENT STATUS (MULTIPLE RESPONSES)	EMPLYD FULL-TIME N	P	EMPLYD PART-TIME N	P	UNEMPL LOOK-ING N	P	UNEMPL NOT LOOK N	P	COLLEG FULL-TIME N	P	COLLEG PART-TIME N	P	SCHOOL FULL-TIME N	P	SCHOOL PART-TIME N	P	TOTAL CASES N
CHICAGO	446	46.4	124	12.9	164	17.1	34	3.5	277	28.8	103	10.7	17	1.8	23	2.4	961
HOUSTON	285	37.1	104	13.5	113	14.7	84	10.9	272	35.4	42	5.5	27	3.5	19	2.5	769
NEW YORK	512	32.3	221	14.0	218	13.8	132	8.3	713	45.0	42	2.7	39	2.5	27	1.7	1584
PHILADELPHIA	723	53.2	127	9.3	221	16.3	42	3.1	167	12.3	21	1.5	101	7.4	68	5.0	1359
CLASS 1 CITIES	1956	42.1	576	12.3	716	15.3	292	6.2	1429	30.6	208	4.5	184	3.9	137	2.9	4673
ATLANTA	48	36.6	31	23.7	21	16.0	9	6.1	22	16.8	6	4.6	17	13.0	8	6.1	131
BALTIMORE	953	49.0	181	9.3	408	21.0	83	4.3	342	17.6	51	2.6	33	1.7	49	2.5	1943
BOSTON	438	57.4	65	8.5	56	7.3	28	3.7	81	10.6	21	2.8	52	6.8	45	5.9	763
CLEVELAND	279	50.5	52	9.4	70	12.7	33	6.0	107	19.4	25	4.5	13	2.4	31	5.6	552
NEW ORLEANS	187	39.0	61	12.7	94	19.6	23	4.9	126	26.2	30	6.3	14	2.9	13	2.7	480
PITTSBURGH	517	46.1	154	13.7	201	17.9	43	3.8	126	11.2	22	2.0	126	11.2	56	5.0	1121
SAN FRANCISCO	116	22.8	92	18.1	132	26.0	27	5.3	208	40.9	72	14.2	10	2.0	11	2.2	508
SEATTLE	56	20.1	74	26.5	52	18.6	31	11.1	148	53.0	18	6.5	4	1.4	5	1.8	279
ST LOUIS	297	35.7	119	14.3	168	20.2	55	6.6	233	28.0	59	7.1	14	1.7	32	3.9	831
WASHINGTON DC	246	46.9	70	13.3	126	24.0	25	4.8	100	19.0	45	8.6	15	2.9	22	4.2	525
CLASS 2 CITIES	3137	44.0	899	12.6	1328	18.6	356	5.0	1493	20.9	349	4.9	298	4.2	272	3.8	7133
BIRMINGHAM	40	23.1	12	6.9	58	33.5	11	6.4	62	35.8	4	2.3	7	4.0	10	5.8	173
LOUISVILLE	224	48.3	41	8.8	93	20.0	24	5.2	75	16.2	18	3.9	14	3.0	12	2.6	464
MINNEAPOLIS	93	56.7	29	17.7	15	9.1	4	2.4	20	12.2	3	1.8	14	8.5	8	4.9	164
NEWARK	176	49.6	33	9.3	63	17.7	20	5.6	83	23.4	13	3.7	13	3.7	15	4.2	355
ESSEX COUNTY	115	47.9	29	12.1	45	18.7	6	2.5	46	19.2	4	1.7	6	2.5	4	1.7	240
NORFOLK	100	39.8	35	13.9	41	16.3	15	6.0	55	21.9	5	2.0	10	4.0	8	3.2	251
OMAHA	254	50.1	91	17.9	39	7.7	33	6.5	154	30.4	13	2.6	23	4.5	17	3.4	507
PORTLAND	282	29.4	211	22.0	133	13.9	68	7.1	399	41.6	77	8.0	19	2.0	14	1.5	960
ROCHESTER	309	43.6	104	14.7	104	14.7	39	5.5	217	30.6	44	6.2	17	2.4	23	3.2	708
CLASS 3 CITIES	1593	41.7	585	15.3	591	15.5	220	5.8	1111	29.1	181	4.7	123	3.2	111	2.9	3822
ALL CITIES COMBINED	6696	42.8	2060	13.2	2635	16.9	868	5.6	4033	25.8	738	4.7	605	3.9	520	3.3	15628

SUMMARY

1. There are substantial individual city differences in some of the present status outcomes. Consult table for details.

TABLE 5.6 STABILITY WITH FIRST JOB EMPLOYER (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

IS YOUR PRESENT JOB YOUR FIRST JOB SINCE HIGH SCHOOL	YES		NO		TOTAL CASES	
	N	P	N	P	N	P
CHICAGO	260	73.2	95	26.8	355	100.0
HOUSTON	179	71.0	73	29.0	252	100.0
NEW YORK	330	72.1	128	27.9	458	100.0
PHILADELPHIA	477	73.4	173	26.6	650	100.0
CLASS 1 CITIES	1246	72.7	469	27.3	1715	100.0
ATLANTA	34	77.3	10	22.7	44	100.0
BALTIMORE	593	69.1	265	30.9	858	100.0
BOSTON	268	68.0	126	32.0	394	100.0
CLEVELAND	166	69.7	72	30.3	238	100.0
NEW ORLEANS	123	75.5	40	24.5	163	100.0
PITTSBURGH	343	73.1	126	26.9	469	100.0
SAN FRANCISCO	65	66.3	33	33.7	98	100.0
SEATTLE	32	76.2	10	23.8	42	100.0
ST LOUIS	186	75.6	60	24.4	246	100.0
WASHINGTON DC	129	64.8	70	35.2	199	100.0
CLASS 2 CITIES	1939	70.5	812	29.5	2751	100.0
BIRMINGHAM	22	62.9	13	37.1	35	100.0
LOUISVILLE	155	75.2	51	24.8	206	100.0
MINNEAPOLIS	67	80.7	16	19.3	83	100.0
NEWARK	111	72.1	43	27.9	154	100.0
ESSEX COUNTY	70	66.0	36	34.0	106	100.0
NORFOLK	65	70.7	27	29.3	92	100.0
OMAHA	170	74.6	58	25.4	228	100.0
PORTLAND	169	72.5	64	27.5	233	100.0
ROCHESTER	204	78.2	57	21.8	261	100.0
CLASS 3 CITIES	1033	73.9	365	26.1	1398	100.0
ALL CITIES COMBINED	4218	71.9	1646	28.1	5864	100.0

SUMMARY

1. Although there are significant individual city differences, the basic pattern is similar in all cities. Most are still with their first employer.

TABLE 5.7.1 TIME REQUIRED TO OBTAIN FIRST FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

HOW MANY WEEKS AFTER HIGH SCHOOL DID IT TAKE TO GET YOUR FIRST JOB	IMMED-IATELY		1 - 2 WEEKS		3 - 4 WEEKS		5 - 6 WEEKS		7 - 8 WEEKS	
	N	P	N	P	N	P	N	P	N	P
CHICAGO	126	40.0	74	23.5	42	13.3	20	6.3	12	3.8
HOUSTON	117	47.8	50	20.5	21	8.6	10	4.1	7	2.9
NEW YORK	128	31.4	108	26.5	64	15.7	17	4.2	27	6.6
PHILADELPHIA	246	42.2	128	22.0	62	20.0	32	5.5	35	11.3
CLASS 1 CITIES	617	39.8	360	23.2	189	12.2	79	5.1	81	5.2
ATLANTA	21	48.8	7	16.3	4	9.3	1	2.3	5	11.6
BALTIMORE	213	27.4	183	23.6	115	14.8	60	7.7	53	6.8
BOSTON	172	50.6	85	25.0	31	9.1	6	1.8	12	3.5
CLEVELAND	78	35.6	66	30.1	27	12.3	14	6.4	12	5.5
NEW ORLEANS	60	38.2	35	22.3	18	11.5	6	3.8	10	6.4
PITTSBURGH	147	33.5	75	17.1	59	13.4	26	5.9	39	8.9
SAN FRANCISCO	22	27.8	19	24.0	10	12.6	6	7.6	7	8.9
SEATTLE	19	46.3	4	9.8	3	7.3	1	2.4	3	7.3
ST LOUIS	100	42.6	47	20.0	30	12.8	15	6.4	11	4.2
WASHINGTON DC	77	39.9	54	28.0	28	14.5	7	3.6	3	1.6
CLASS 2 CITIES	909	36.0	575	22.8	325	12.9	142	5.6	155	6.1
BIRMINGHAM	9	28.1	7	21.9	2	6.2	4	12.5	1	3.1
LOUISVILLE	97	49.0	29	14.6	21	10.6	8	4.0	13	6.6
MINNEAPOLIS	47	59.5	12	15.2	1	1.3	2	2.5	4	5.1
NEWARK	42	31.1	39	28.9	20	14.5	11	8.1	6	4.4
ESSEX COUNTY	33	31.7	32	30.8	12	11.5	7	6.7	7	6.7
NORFOLK	39	38.6	26	25.7	6	5.9	6	5.9	6	5.9
OMAHA	83	39.2	52	24.5	19	9.0	13	6.1	9	4.2
PORTLAND	82	39.8	40	19.4	17	8.2	11	5.3	11	5.3
ROCHESTER	82	35.8	61	26.6	30	13.1	12	5.2	15	6.6
CLASS 3 CITIES	514	39.7	298	23.6	128	9.9	74	5.7	72	5.6
ALL CITIES COMBINED	2040	38.0	1233	23.0	642	12.0	295	5.5	308	5.7

SUMMARY

1. There are substantial individual city differences in time required by graduates to get their first full-time job.

TABLE 5.7.1 TIME REQUIRED TO OBTAIN FIRST FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME) (CONTINUED)

HOW MANY WEEKS AFTER HIGH SCHOOL DID IT TAKE TO GET YOUR FIRST JOB	9-10 WEEKS		11-12 WEEKS		13-14 WEEKS		15-16 WEEKS		OVER 4 MONTHS		TOTAL CASES	MEAN WEEKS
	N	P	N	P	N	P	N	P	N	P	N	
CHICAGO	20	6.3	12	3.8	5	1.6	1	.3	3	1.0	315	2.92
HOUSTON	18	7.4	14	5.7	2	.8	1	.4	4	1.6	244	2.87
NEW YORK	31	7.6	15	3.7	7	1.7	2	.4	8	2.0	407	3.47
PHILADELPHIA	44	7.5	22	3.8	7	1.2	2	.3	5	.8	583	3.00
CLASS 1 CITIES	113	7.3	63	4.1	21	1.4	6	3.4	20	1.3	1549	3.07
ATLANTA	4	9.3	1	2.3							43	2.72
BALTIMORE	65	8.4	41	5.3	12	1.5	17	2.2	18	2.3	777	4.16
BOSTON	19	5.6	2	.6	6	1.8	4	1.2	3	.9	340	2.22
CLEVELAND	8	3.6	3	1.4	3	1.4	4	1.8	4	1.8	219	2.9[illegible]
NEW ORLEANS	15	9.6	3	1.9	2	1.3	5	3.2	3	1.9	157	3.55
PITTSBURGH	37	8.4	31	7.1	8	1.8	8	1.8	9	2.1	439	4.21
SAN FRANCISCO	9	11.4	3	3.8	2	2.5			1	1.3	79	3.56
SEATTLE	3	7.3	5	12.2	1	2.4	1	2.4	1	2.4	41	4.31
ST LOUIS	11	4.7	4	1.7	5	2.1	6	2.6	6	2.6	235	3.21
WASHINGTON DC	13	6.7	4	2.1	2	1.0	2	1.0	3	1.6	193	2.69
CLASS 2 CITIES	184	7.3	97	3.8	41	1.6	47	1.9	48	1.9	2523	3.53
BIRMINGHAM	1	3.1	3	9.4	2	6.2	2	6.2	1	3.1	32	5.20
LOUISVILLE	10	5.1	7	3.5	2	1.0	6	3.0	5	2.5	198	3.23
MINNEAPOLIS	8	10.1	1	1.3	2	2.5	1	1.3	1	1.3	79	2.65
NEWARK	9	6.7	5	3.7	1	.7			2	1.5	135	3.15
ESSEX COUNTY	6	5.8	4	3.8	1	1.0			2	1.9	104	3.19
NORFOLK	9	8.9	4	4.0	3	3.0	2	2.0			101	3.37
OMAHA	15	7.1	9	4.2	3	1.4	4	1.7	5	2.4	212	3.39
PORTLAND	17	8.2	17	8.2	5	2.4	2	1.0	4	1.9	206	3.82
ROCHESTER	13	5.7	7	3.0	4	1.7	1	.4	4	1.7	225	3.13
CLASS 3 CITIES	88	6.8	57	4.4	23	1.7	18	1.4	24	1.8	1296	3.35
ALL CITIES COMBINED	385	7.2	217	4.0	85	1.6	71	1.3	92	1.7	5368	3.36

SUMMARY

1. There are substantial individual city differences in mean time (weeks) required by graduates to find their first full-time job.

TABLE 5.7.2 ACTIVITY IN LOOKING FOR A JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

WERE YOU LOOKING FOR A JOB DURING MOST OF THAT TIME	YES		NO		TOTAL CASES	
	N	P	N	P	N	P
CHICAGO	97	39.1	151	60.9	248	100.0
HOUSTON	67	40.6	98	59.4	165	100.0
NEW YORK	128	39.4	197	60.6	325	100.0
PHILADELPHIA	184	44.6	229	55.4	413	100.0
CLASS 1 CITIES	476	41.4	675	58.6	1151	100.0
ATLANTA	6	27.3	16	72.7	22	100.0
BALTIMORE	319	49.5	326	50.5	645	100.0
BOSTON	77	33.3	154	66.7	231	100.0
CLEVELAND	81	49.7	82	50.3	163	100.0
NEW ORLEANS	55	47.4	61	52.6	116	100.0
PITTSBURGH	167	49.7	169	50.3	336	100.0
SAN FRANCISCO	26	40.0	39	60.0	65	100.0
SEATTLE	8	30.8	18	69.2	26	100.0
ST LOUIS	74	47.4	82	52.6	156	100.0
WASHINGTON DC	55	43.3	72	56.7	127	100.0
CLASS 2 CITIES	868	46.0	1019	54.0	1887	100.0
BIRMINGHAM	14	50.0	14	50.0	28	100.0
LOUISVILLE	64	53.8	55	46.2	119	100.0
MINNEAPOLIS	14	29.8	33	70.2	47	100.0
NEWARK	40	39.6	61	60.4	101	100.0
ESSEX COUNTY	27	38.0	44	62.0	71	100.0
NORFOLK	24	35.8	43	64.2	67	100.0
OMAHA	59	38.8	93	61.2	152	100.0
PORTLAND	53	34.9	99	65.1	152	100.0
ROCHESTER	72	40.7	105	59.3	177	100.0
CLASS 3 CITIES	367	40.2	547	59.8	914	100.0
ALL CITIES COMBINED	171[illegible]	43.3	2241	56.7	3952	100.0

SUMMARY

1. There are significant individual city differences. We believe they reflect the differences in employment opportunities.

TABLE 5.3 METHODS USED TO OBTAIN FIRST FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

METHOD USED TO GET FIRST JOB AFTER HIGH SCHOOL	ALREDY HAD JOB N	P	THRU VOCAT TEACH N	P	THRU SCHOOL COUNSL N	P	THRU SCHOOL PLCMNT N	P	OTHER SCHOOL PERSON N	P
CHICAGO	91	25.7	35	9.9	15	4.2	30	8.5	6	1.7
HOUSTON	80	31.9	37	14.7	5	2.0	3	1.2	2	.8
NEW YORK	90	19.6	38	8.3	13	2.8	67	14.6	11	2.4
PHILADELPHIA	163	25.0	83	12.7	12	1.8	47	7.2	22	3.4
CLASS 1 CITIES	424	24.7	193	11.2	45	2.6	147	8.6	41	2.4
ATLANTA	17	38.6	4	9.1						
BALTIMORE	189	22.0	24	2.8	29	3.4	155	18.0	10	1.2
BOSTON	158	40.2	14	3.6	28	7.1	21	5.3	6	1.5
CLEVELAND	51	21.6	27	11.4	15	6.4	39	16.5	3	1.3
NEW ORLEANS	44	27.5	16	10.0			3	1.9	3	1.9
PITTSBURGH	94	19.9	53	11.2	22	4.7	16	3.4	12	2.5
SAN FRANCISCO	20	21.1	2	2.1	5	5.3	3	3.2	2	2.1
SEATTLE	16	38.1	3	7.1			2	4.8		
ST LOUIS	68	27.5	32	13.0	6	2.4	6	2.4	4	1.6
WASHINGTON DC	59	29.5	18	9.0	18	9.0	13	6.5	9	4.5
CLASS 2 CITIES	716	26.1	193	7.0	123	4.5	258	9.4	49	1.8
BIRMINGHAM	9	26.5								
LOUISVILLE	68	33.5	29	14.3	1	.5	8	3.9	1	.5
MINNEAPOLIS	42	48.8	5	5.8	7	8.1	4	4.7		
NEWARK	26	23.7	6	3.9	6	3.9	17	11.2	2	1.3
ESSEX COUNTY	22	21.0	11	10.5	6	5.7	3	2.9	1	1.0
NORFOLK	25	26.6	14	14.9			2	2.1		
OMAHA	72	31.6	11	4.8	1	.4	2	.9		
PORTLAND	76	32.8	6	2.6	5	2.2	11	4.7	3	1.3
ROCHESTER	69	26.3	13	5.0	14	5.3	25	9.5	4	1.5
CLASS 3 CITIES	419	30.0	95	6.8	40	2.9	72	5.2	11	.8
ALL CITIES COMBINED	1559	26.6	481	8.2	208	3.5	477	8.1	101	1.7

SUMMARY

1. While there are substantial individual city differences, all cities are alike in that most graduates do not get the jobs through school sources.

TABLE 5.8 METHODS USED TO OBTAIN FIRST FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME) CONTINUED

METHOD USED TO GET FIRST JOB AFTER HIGH SCHOOL	PRIVATE EMPLOY AGENCY N	P	STATE EMPLOY AGENCY N	P	THRU PARENT RELATV N	P	THRU FAMILY FRIEND N	P	ON MY OWN N	P	TOTAL CASES N	P
CHICAGO	31	8.8	10	2.8	21	5.9	42	11.9	73	20.6	354	100.0
HOUSTON	20	8.0	6	2.4	13	5.2	27	10.8	58	23.1	251	100.0
NEW YORK	28	6.1	18	3.9	26	5.7	66	14.3	103	22.4	460	100.0
PHILADELPHIA	21	3.2	26	4.0	46	7.1	68	10.4	163	25.0	651	100.0
CLASS 1 CITIES	100	5.8	60	3.5	106	6.2	203	11.8	397	23.1	1716	100.0
ATLANTA	2	4.5	3	6.8	1	2.3	7	15.9	10	22.7	44	100.0
BALTIMORE	21	2.4	40	4.7	40	4.7	115	13.4	236	27.5	859	100.0
BOSTON	17	4.3	10	2.5	15	3.8	43	10.9	81	20.6	393	100.0
CLEVELAND	9	3.8	8	3.4	8	3.4	29	12.3	47	19.9	236	100.0
NEW ORLEANS	13	8.1	3	1.9	11	6.9	15	9.4	52	32.5	160	100.0
PITTSBURGH	23	4.9	16	3.4	36	7.6	73	15.5	127	26.9	472	100.0
SAN FRANCISCO	9	9.5	2	2.1	6	6.3	18	18.9	28	29.5	95	100.0
SEATTLE	5	11.9			4	9.5	4	9.5	8	19.0	42	100.0
ST LOUIS	13	5.3	28	11.3	8	3.2	25	10.1	57	23.1	247	100.0
WASHINGTON DC	4	2.0	15	7.5	8	4.0	19	9.5	37	18.5	200	100.0
CLASS 2 CITIES	116	4.2	125	4.5	137	5.0	348	12.7	683	24.9	2748	100.0
BIRMINGHAM	1	2.9	3	8.8	3	8.8	8	23.5	10	29.4	34	100.0
LOUISVILLE	4	2.0	6	3.0	12	5.9	24	11.8	50	24.6	203	100.0
MINNEAPOLIS			3	3.5	5	5.8	7	8.1	13	15.1	86	100.0
NEWARK	6	3.9	5	3.3	10	6.6	21	13.8	43	28.3	152	100.0
ESSEX COUNTY	2	1.9	3	2.9	14	13.3	19	18.1	24	22.9	105	100.0
NORFOLK	2	2.1	6	6.4	4	4.3	19	20.2	22	23.4	94	100.0
OMAHA	15	6.6	7	3.1	16	7.0	25	11.0	79	34.6	228	100.0
PORTLAND	15	6.5	9	3.9	19	8.2	32	13.8	56	24.1	232	100.0
ROCHESTER	5	1.9	19	7.3	10	3.8	22	8.4	81	30.9	262	100.0
CLASS 3 CITIES	50	3.6	61	4.4	93	6.7	177	12.7	378	27.1	1396	100.0
ALL CITIES COMBINED	266	4.5	246	4.2	336	5.7	728	12.4	1458	24.9	5860	100.0
SUMMARY												

2. The majority of the graduates must rely on family connections or their own resources to find employment. Employment agencies are a minor resource.

TABLE 5.10 RELATION OF PRESENT JOB TO VOCATIONAL COURSE (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

HOW RELATED IS YOUR PRESENT JOB TO YOUR HIGH SCHOOL OCCUPATIONAL COURSE	SAME OCCUP		HIGHLY RELATE		SLIGHT RELATE		UNREL-ATED		TOTAL CASES		MEAN RELATED-NESS*
	N	P	N	P	N	P	N	P	N	P	
CHICAGO	81	23.2	70	20.1	87	24.9	111	31.8	349	100.0	2.34
HOUSTON	54	22.1	54	22.1	52	21.3	84	34.4	244	100.0	2.31
NEW YORK	112	24.9	90	20.0	110	24.4	138	30.7	450	100.0	2.39
PHILADELPHIA	137	21.4	170	26.6	157	24.5	176	27.5	640	100.0	2.41
CLASS 1 CITIES	384	22.8	384	22.8	406	24.1	509	30.2	1683	100.0	2.38
ATLANTA	9	22.5	7	17.5	11	27.5	13	32.5	40	100.0	2.30
BALTIMORE	184	21.9	212	25.2	175	20.8	270	32.1	841	100.0	2.36
BOSTON	99	23.1	78	20.1	131	33.7	90	23.1	389	100.0	2.43
CLEVELAND	60	25.6	43	18.4	62	26.5	69	29.5	234	100.0	2.40
NEW ORLEANS	43	27.0	41	25.8	28	17.6	47	29.5	159	100.0	2.48
PITTSBURGH	102	21.8	89	19.1	92	19.7	184	39.4	467	100.0	2.23
SAN FRANCISCO	14	14.7	23	24.2	32	33.7	26	27.4	95	100.0	2.26
SEATTLE	6	14.6	10	24.4	10	24.4	15	36.6	41	100.0	2.17
ST LOUIS	53	21.6	61	24.9	69	28.2	62	25.3	245	100.0	2.42
WASHINGTON DC	42	21.2	45	22.7	51	25.8	60	30.3	198	100.0	2.34
CLASS 2 CITIES	603	22.3	609	22.5	661	24.4	836	30.9	2709	100.0	2.36
BIRMINGHAM	[illegible]	15.2	6	18.2	6	18.2	16	48.5	33	100.0	2.00
LOUISVILLE	[illegible]	26.8	41	20.0	35	17.1	74	36.1	205	100.0	2.37
MINNEAPOLIS	36	42.9	17	20.2	6	7.1	25	29.8	84	100.0	2.76
NEWARK	28	18.7	35	23.3	51	34.0	36	24.0	150	100.0	2.36
ESSEX COUNTY	24	23.5	24	23.5	23	22.5	31	30.4	102	100.0	2.40
NORFOLK	29	31.2	21	22.6	16	17.2	27	29.0	93	100.0	2.55
OMAHA	37	16.7	51	23.1	56	25.3	77	34.8	221	100.0	2.22
PORTLAND	39	17.3	39	17.3	66	29.2	82	36.3	226	100.0	2.15
ROCHESTER	37	14.7	64	25.4	59	23.4	92	36.5	252	100.0	2.18
CLASS 3 CITIES	290	21.2	298	21.8	318	23.3	460	33.7	1366	100.0	2.31
ALL CITIES COMBINED	1277	22.2	1291	22.4	1385	24.1	1805	31.3	5758	100.0	2.35

*The rating scale was as follows: 4 - same occupation studied, 3 - highly related (to occupation studied), 2 - slightly related (to occupation studied), 1 - completely unrelated (to occupation studied).

SUMMARY

1. There are significant individual city differences. Consult table for details.

TABLE 5.11 ADEQUACY OF TRAINING FOR PRESENT JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME IN FIELD OF STUDY)

HOW WELL DID YOUR HIGH SCHOOL OCCUPATIONAL COURSE PREPARE YOU FOR YOUR PRESENT JOB (GRADUATES EMPLOYED IN FIELD)	EXCEL-LENT PREP		GOOD PREP		FAIR PREP		POOR PREP		TOTAL CASES	
	N	P	N	P	N	P	N	P	N	P
CHICAGO	66	45.5	69	47.6	10	6.9			145	100.0
HOUSTON	53	50.0	48	45.3	3	2.8	2	1.9	106	100.0
NEW YORK	79	41.1	100	52.1	13	6.8			192	100.0
PHILADELPHIA	121	40.6	166	55.7	10	3.4	1	.3	298	100.0
CLASS 1 CITIES	319	43.0	383	51.7	36	4.9	3	.4	741	100.0
ATLANTA	6	40.0	8	53.3			1	6.7	15	100.0
BALTIMORE	139	36.9	229	60.7	8	2.1	1	.3	377	100.0
BOSTON	57	35.8	90	56.6	10	6.3	2	1.3	159	100.0
CLEVELAND	38	37.3	55	53.9	5	4.9	4	3.9	102	100.0
NEW ORLEANS	37	46.8	38	48.1	3	3.8	1	1.3	79	100.0
PITTSBURGH	69	37.9	103	56.6	10	5.5			182	100.0
SAN FRANCISCO	9	25.7	23	65.7	3	8.6			35	100.0
SEATTLE	4	25.0	12	75.0					16	100.0
ST LOUIS	45	40.5	64	57.7	2	1.8			111	100.0
WASHINGTON DC	41	48.8	39	46.4	4	4.8			84	100.0
CLASS 2 CITIES	445	38.4	661	57.0	45	3.9	9	.8	1160	100.0
BIRMINGHAM	4	36.4	7	63.6					11	100.0
LOUISVILLE	43	46.2	42	45.2	6	6.5	2	2.2	93	100.0
MINNEAPOLIS	15	28.8	31	59.6	5	9.6	1	1.9	52	100.0
NEWARK	28	45.9	31	50.8	2	3.3			61	100.0
ESSEX COUNTY	20	43.5	25	54.3	1	2.2			46	100.0
NORFOLK	19	41.3	26	56.5	1	2.2			46	100.0
OMAHA	25	29.4	57	67.1	3	3.5			85	100.0
PORTLAND	29	38.2	41	53.9	6	7.9			76	100.0
ROCHESTER	42	44.2	50	52.6	2	2.1	1	1.1	95	100.0
CLASS 3 CITIES	225	39.8	310	54.9	26	4.6	4	.7	565	100.0
ALL CITIES COMBINED	989	40.1	1354	54.9	107	4.3	16	.6	2466	100.0
SUMMARY										

1. **In all cities, the great majority of graduates employed in their field rate their vocational training as excellent or good.**

TABLE 5.12 REASONS FOR PRESENT JOB NOT IN FIELD OF STUDY (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME OUT OF FIELD OF STUDY)

WHAT WAS THE MAIN REASON FOR NOT GETTING PRESENT JOB IN OCCUPATION STUDIED (GRADS NOT EMPLOYED IN FIELD)	NO JOB IN THE FIELD		NOT ACCEPT APPREN		NOT QUALI-FIED		DIDNOT LIKE WORK		PAY TOO LOW		NO ADVANC MENT		BETTER JOB OFFER		NEVER PLAN WORK		TOTAL CASES
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N
CHICAGO	32	18.9	5	3.0	24	14.2	27	16.0	10	5.9	4	2.4	20	11.8	18	10.7	169
HOUSTON	14	11.8	2	1.7	12	10.1	8	6.7	4	3.4	10	8.4	16	13.4	15	12.6	119
NEW YORK	37	18.1	12	5.9	33	16.2	27	13.2	12	5.9	5	2.5	18	8.8	17	8.3	204
PHILADELPHIA	52	19.8	12	4.6	42	16.0	25	9.5	7	2.7	8	3.0	28	10.6	25	9.5	263
CLASS 1 CITIES	135	17.9	31	4.1	111	14.7	87	11.5	33	4.4	27	3.6	82	10.9	75	9.9	755
ATLANTA	5	27.8			1	5.6	1	5.6					4	22.2	1	5.5	18
BALTIMORE	80	21.0	17	4.5	44	11.5	44	11.5	14	3.7	9	2.4	35	9.2	44	11.5	381
BOSTON	15	8.6	5	2.9	19	10.9	34	19.4	11	6.3	5	2.9	28	16.0	21	12.0	175
CLEVELAND	24	22.6	3	2.8	10	9.4	12	11.3	1	.9	2	1.9	15	14.2	6	5.7	106
NEW ORLEANS	13	21.0	3	4.8	8	12.9	6	9.7			1	1.6	10	16.1	8	12.9	62
PITTSBURGH	72	30.0	7	2.9	34	14.2	19	7.9	5	2.1	6	2.5	26	10.8	13	5.4	240
SAN FRANCISCO	11	23.4	1	2.1	6	12.8	5	10.6	1	2.1			3	6.4	8	17.0	47
SEATTLE	2	9.1	1	4.5	2	9.1	3	13.6	1	4.5	1	4.5	1	4.5	5	22.7	22
ST LOUIS	21	19.4	8	7.4	16	14.8	10	9.3	1	.9	5	4.6	13	12.0	6	5.6	108
WASHINGTON DC	11	12.8	8	9.3	19	22.1	7	8.1	1	1.2	4	4.7	10	11.6	6	7.0	86
CLASS 2 CITIES	254	20.4	53	4.3	159	12.8	141	11.3	35	2.8	33	2.7	145	11.6	118	9.5	1245
BIRMINGHAM	6	28.6	1	4.8	3	14.3	1	4.8			1	4.8	2	9.5	2	9.5	21
LOUISVILLE	21	21.9	2	2.1	15	15.6	11	11.5	6	6.3			12	12.5	7	7.3	96
MINNEAPOLIS	6	20.7			3	10.3	8	27.6			1	3.4	1	3.4	5	17.2	29
NEWARK	4	7.3	2	3.6	9	16.4	6	10.9	4	7.3	1	1.8	7	12.7	8	14.5	55
ESSEX COUNTY	7	15.9	3	6.8	6	13.6	5	11.4	1	2.3			8	18.2	3	6.8	44
NORFOLK	9	24.3	2	5.4	2	5.4	6	16.2			1	2.7	3	8.1	3	8.1	37
OMAHA	10	8.8	1	.9	21	18.6	17	15.0	4	3.5	1	.9	9	8.0	14	12.4	113
PORTLAND	20	16.7	1	.8	16	13.3	14	11.7	1	.8	1	.8	11	9.2	23	19.2	120
ROCHESTER	37	30.1	4	3.3	14	11.4	8	6.5	4	3.3	2	1.6	12	9.8	7	5.7	123
CLASS 3 CITIES	120	18.8	16	2.5	89	13.9	76	11.9	20	3.1	8	1.3	65	10.2	72	11.3	638
ALL CITIES COMBINED	509	19.3	100	3.8	359	13.6	304	11.5	88	3.3	68	2.6	292	11.1	265	10.0	2638

SUMMARY

1. While there are significant individual city differences, the basic similarity of data for most cities is more impressive.

TABLE 5J3 HOURLY EARNINGS ON PRESENT FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

WHAT IS YOUR PRESENT HOURLY PAY RATE (BEFORE DEDUCTIONS)	1.00-1.49		1.50-1.99		2.00-2.49		2.50-2.99		3.00-3.49		3.50-3.99		4.00-AND OVER		TOTAL CASES	MEAN EARNINGS
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	
CHICAGO	4	1.2	31	8.9	133	38.3	119	34.3	39	11.2	12	3.5	9	2.6	347	2.57
HOUSTON	4	1.7	76	32.2	100	42.4	42	17.8	5	2.1	4	1.7	5	2.1	236	2.25
NEW YORK	12	2.7	36	8.2	148	33.7	136	31.0	52	11.8	38	8.7	17	3.9	439	2.66
PHILADELPHIA	8	1.4	168	29.2	281	48.9	68	11.8	22	3.8	15	2.6	13	2.3	575	2.27
CLASS 1 CITIES	28	1.8	311	19.5	662	41.5	365	22.9	118	7.4	69	4.3	44	2.8	1597	2.45
ATLANTA			8	18.6	22	51.2	9	20.9	1	2.3	1	2.3	2	4.7	43	2.41
BALTIMORE	32	3.9	276	33.6	311	37.9	122	14.9	40	4.9	21	2.6	19	2.3	821	2.25
BOSTON	6	1.6	28	7.4	215	56.7	87	23.0	25	6.6	9	2.4	9	2.4	379	2.45
CLEVELAND	8	3.4	40	17.2	98	42.1	56	24.0	16	6.9	9	3.9	6	2.6	233	2.42
NEW ORLEANS	6	3.8	58	36.7	69	43.7	18	11.4	4	2.5	1	.6	2	1.3	158	2.14
PITTSBURGH	18	4.0	146	32.4	188	41.7	58	12.9	24	5.3	9	2.0	8	1.8	451	2.23
SAN FRANCISCO	2	2.2	8	8.6	39	41.9	34	36.6	7	7.5	1	1.1	2	2.2	93	2.50
SEATTLE			11	28.2	15	38.5	9	23.1	1	2.6	3	7.7			39	2.35
ST LOUIS	4	1.7	66	27.6	106	44.4	32	13.4	18	7.5	8	3.3	5	2.1	239	2.32
WASHINGTON DC	2	1.0	28	14.6	88	45.8	54	28.1	15	7.8	4	2.1	1	.5	192	2.42
CLASS 2 CITIES	78	2.9	669	25.3	1151	43.5	479	18.1	151	5.7	66	2.5	54	2.0	2648	2.32
BIRMINGHAM	2	5.7	9	25.7	17	48.6	3	8.6	4	11.4					35	2.22
LOUISVILLE	18	8.8	78	38.0	65	31.7	21	10.2	17	8.3	3	1.5	3	1.5	205	2.15
MINNEAPOLIS	1	1.2	19	22.4	37	43.5	15	17.5	7	8.2	3	3.5	3	3.5	85	2.42
NEWARK	2	1.3	24	15.9	68	45.0	45	29.8	5	3.3	4	2.6	3	2.0	151	2.41
ESSEX COUNTY	3	3.0	16	16.0	38	38.0	26	26.0	12	12.0	3	3.0	2	2.0	100	2.47
NORFOLK	5	5.9	54	63.5	20	23.5	5	5.9			1	1.2			85	1.92
OMAHA	5	2.2	91	40.3	80	35.4	18	8.0	15	6.6	8	3.5	9	4.0	226	2.25
PORTLAND	6	2.6	94	40.3	90	38.6	25	10.7	7	3.0	5	2.1	6	2.6	233	2.13
ROCHESTER			44	17.1	106	41.2	62	24.1	33	12.8	6	2.3	6	2.3	257	2.49
CLASS 3 CITIES	42	3.1	429	31.2	521	37.8	220	16.0	100	7.3	33	2.4	32	2.3	1377	2.30
ALL CITIES COMBINED	148	2.6	1409	25.1	2334	41.5	1064	18.9	369	6.6	168	3.0	130	2.3	5622	2.35

SUMMARY

1. There are significant individual city differences in mean hourly earnings for the vocational graduates. See text for discussion.

TABLE 5J4 RELATION OF PRESENT STUDIES TO HIGH SCHOOL COURSE (VOCATIONALS PRESENTLY ATTENDING COLLEGE OR SCHOOL)

ARE YOUR PRESENT STUDIES OR PLANNED COLLEGE MAJOR RELATED TO YOUR HS OCCUPATIONAL COURSE	YES, RELATED N	YES, RELATED P	NOT RELATED N	NOT RELATED P	TOTAL CASES N	TOTAL CASES P
CHICAGO	169	41.3	240	59.7	409	100.0
HOUSTON	202	60.1	134	39.9	336	100.0
NEW YORK	509	64.5	280	35.5	789	100.0
PHILADELPHIA	193	58.1	139	41.9	332	100.0
CLASS 1 CITIES	1073	57.5	793	42.5	1866	100.0
ATLANTA	21	43.8	27	56.3	48	100.0
BALTIMORE	234	52.5	212	47.5	446	100.0
BOSTON	120	65.6	63	34.4	183	100.0
CLEVELAND	94	57.0	71	43.0	165	100.0
NEW ORLEANS	119	68.0	56	32.0	175	100.0
PITTSBURGH	206	68.0	97	32.0	303	100.0
SAN FRANCISCO	185	64.7	101	35.3	286	100.0
SEATTLE	67	42.7	90	57.3	157	100.0
ST LOUIS	175	55.0	143	45.0	318	100.0
WASHINGTON DC	114	69.5	50	30.5	164	100.0
CLASS 2 CITIES	1335	59.5	910	40.5	2245	100.0
BIRMINGHAM	39	47.6	43	52.4	82	100.0
LOUISVILLE	56	50.9	54	49.1	110	100.0
MINNEAPOLIS	18	40.9	26	59.1	44	100.0
NEWARK	60	51.7	56	48.3	116	100.0
ESSEX COUNTY	36	65.5	19	34.5	55	100.0
NORFOLK	50	71.4	20	28.6	70	100.0
OMAHA	116	56.6	89	43.4	205	100.0
PORTLAND	242	50.8	234	49.2	476	100.0
ROCHESTER	183	66.5	92	33.5	275	100.0
CLASS 3 CITIES	800	55.8	633	44.2	1433	100.0
ALL CITIES COMBINED	3208	57.9	2336	42.1	5544	100.0

SUMMARY

1. There are significant individual city differences for percentages of college or school attending graduates whose present studies are related to their high school vocational course.

TABLE 5.15 DISCUSSION OF POST-HIGH SCHOOL EDUCATION WITH COUNSELOR (VOCATIONALS PRESENTLY ATTENDING COLLEGE OR SCHOOL)

DID YOU DISCUSS YOUR COLLEGE OR SCHOOL PLANS WITH YOUR HIGH SCHOOL COUNSELOR	YES		NO		TOTAL CASES	
	N	P	N	P	N	P
CHICAGO	210	51.7	196	48.3	406	100.0
HOUSTON	186	53.9	159	46.1	345	100.0
NEW YORK	520	66.4	263	33.6	783	100.0
PHILADELPHIA	193	58.5	137	41.5	330	100.0
CLASS 1 CITIES	1109	59.5	755	40.5	1864	100.0
ATLANTA	31	66.0	16	34.0	47	100.0
BALTIMORE	292	65.6	153	34.4	445	100.0
BOSTON	96	52.2	88	47.8	184	100.0
CLEVELAND	95	58.3	68	41.7	163	100.0
NEW ORLEANS	101	57.1	76	42.9	177	100.0
PITTSBURGH	197	65.2	105	34.8	302	100.0
SAN FRANCISCO	144	50.5	141	49.5	285	100.0
SEATTLE	89	54.3	75	45.7	164	100.0
ST LOUIS	196	61.1	125	38.9	321	100.0
WASHINGTON DC	88	53.7	76	46.3	164	100.0
CLASS 2 CITIES	1329	59.0	923	41.0	2252	100.0
BIRMINGHAM	44	53.7	38	46.3	82	100.0
LOUISVILLE	60	53.6	52	46.4	112	100.0
MINNEAPOLIS	31	72.1	12	27.9	43	100.0
NEWARK	83	74.1	29	25.9	112	100.0
ESSEX COUNTY	35	63.6	20	36.4	55	100.0
NORFOLK	43	59.7	29	40.3	72	100.0
OMAHA	115	56.1	90	43.9	205	100.0
PORTLAND	286	58.8	200	41.2	486	100.0
ROCHESTER	213	76.6	65	23.4	278	100.0
CLASS 3 CITIES	910	63.0	535	37.0	1445	100.0
ALL CITIES COMBINED	3348	60.2	2213	39.8	5561	100.0

SUMMARY

1. There are significant individual city differences in the percentages of graduates who reported that they discussed their college or school plans with counselors.

TABLE 5J6.1 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (ALL VOCATIONAL GRADUATES)

WHERE ARE YOU NOW LOCATED	SAME CITY N	SAME CITY P	SAME STATE N	SAME STATE P	OTHER STATE N	OTHER STATE P	TOTAL CASES N	TOTAL CASES P
CHICAGO	782	88.9	58	6.6	40	4.5	880	100.0
HOUSTON	538	76.3	139	19.7	28	4.0	705	100.0
NEW YORK	1296	90.0	105	7.3	39	2.7	1440	100.0
PHILADELPHIA	1155	92.9	37	3.0	51	4.1	1243	100.0
CLASS 1 CITIES	3771	88.4	339	7.9	158	3.7	4268	100.0
ATLANTA	104	86.7	15	12.5	1	.8	120	100.0
BALTIMORE	1627	94.8	44	2.6	45	2.6	1716	100.0
BOSTON	530	81.2	102	15.6	21	3.2	653	100.0
CLEVELAND	431	88.1	41	8.4	17	3.5	489	100.0
NEW ORLEANS	388	91.7	16	3.8	19	4.5	423	100.0
PITTSBURGH	955	92.9	33	3.2	40	3.9	1028	100.0
SAN FRANCISCO	442	95.5	16	3.5	5	1.1	463	100.0
SEATTLE	210	80.5	32	12.3	19	7.3	261	100.0
ST LOUIS	645	87.2	55	7.4	40	5.4	740	100.0
WASHINGTON DC	454	93.4	1	.2	31	6.4	486	100.0
CLASS 2 CITIES	5785	90.7	355	5.6	238	3.7	6379	100.0
BIRMINGHAM	129	79.1	20	12.3	14	8.6	163	100.0
LOUISVILLE	394	90.2	33	7.6	10	2.3	437	100.0
MINNEAPOLIS	142	94.7	5	3.3	3	2.0	150	100.0
NEWARK	284	89.6	26	8.2	7	2.2	317	100.0
ESSEX COUNTY	138	66.7	63	30.4	6	2.9	207	100.0
NORFOLK	189	83.6	15	6.6	22	9.7	226	100.0
OMAHA	399	84.2	33	7.0	42	8.9	474	100.0
PORTLAND	714	79.9	120	13.4	60	6.7	894	100.0
ROCHESTER	577	87.3	49	7.4	35	5.3	661	100.0
CLASS 3 CITIES	2966	84.0	364	10.3	199	5.6	3529	100.0
ALL CITIES COMBINED	12523	88.3	1058	7.5	595	4.2	14176	100.0

SUMMARY

1. The great majority of graduates in all cities maintain their residence in the city in which they attended high school, even though there are significant individual city differences.

TABLE 5.16.2 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

	SAME CITY		SAME STATE		OTHER STATE		TOTAL CASES	
WHERE ARE YOU NOW LOCATED	N	P	N	P	N	P	N	P
CHICAGO	314	97.8	4	1.2	3	.9	321	100.0
HOUSTON	235	96.3	9	3.7			244	100.0
NEW YORK	396	92.3	29	6.8	4	.9	429	100.0
PHILADELPHIA	594	96.7	14	2.3	6	1.0	614	100.0
CLASS 1 CITIES	1539	95.7	56	3.5	13	.8	1608	100.0
ATLANTA	34	77.3	10	22.7			44	100.0
BALTIMORE	763	97.8	11	1.4	6	.8	780	100.0
BOSTON	293	82.1	63	17.6	1	.3	357	100.0
CLEVELAND	216	94.3	11	4.8	2	.9	229	100.0
NEW ORLEANS	146	94.8	2	1.3	6	3.9	154	100.0
PITTSBURGH	429	97.9	4	.9	5	1.1	438	100.0
SAN FRANCISCO	82	96.5	1	1.2	2	2.4	85	100.0
SEATTLE	36	92.3	1	2.6	2	5.1	39	100.0
ST LOUIS	225	96.6	4	1.7	4	1.7	233	100.0
WASHINGTON DC	175	96.7	1	.6	5	2.8	181	100.0
CLASS 2 CITIES	2399	94.4	108	4.3	33	1.3	2540	100.0
BIRMINGHAM	33	89.2	1	2.7	3	8.1	37	100.0
LOUISVILLE	194	99.0			2	1.0	196	100.0
MINNEAPOLIS	80	96.4	3	3.6			83	100.0
NEWARK	128	90.8	13	9.2			141	100.0
ESSEX COUNTY	69	70.4	29	29.6			98	100.0
NORFOLK	79	88.8	5	5.6	5	5.6	89	100.0
OMAHA	211	97.7	2	.9	3	1.4	216	100.0
PORTLAND	207	92.8	6	2.7	10	4.5	223	100.0
ROCHESTER	242	98.0	2	.8	3	1.2	247	100.0
CLASS 3 CITIES	1243	93.5	61	4.6	26	2.0	1330	100.0
ALL CITIES COMBINED	5181	94.6	225	4.1	72	1.3	5478	100.0

SUMMARY

1. Of the vocationals presently employed, the overwhelming majority find employment in the city in which they went to high school. There is very little mobility out of the cities at this stage of their careers.

TABLE 5.16.3 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (VOCATIONALS PRESENTLY ATTENDING COLLEGE OR SCHOOL)

WHERE ARE YOU NOW LOCATED	SAME CITY		SAME STATE		OTHER STATE		TOTAL CASES	
	N	P	N	P	N	P	N	P
CHICAGO	333	80.8	49	11.9	30	7.3	412	100.0
HOUSTON	200	57.8	125	36.1	21	6.1	346	100.0
NEW YORK	703	89.7	64	8.2	17	2.2	784	100.0
PHILADELPHIA	292	83.7	22	6.3	35	10.0	349	100.0
CLASS 1 CITIES	1528	80.8	260	13.7	103	5.4	1891	100.0
ATLANTA	47	92.2	3	5.9	1	2.0	51	100.0
BALTIMORE	419	91.1	32	7.0	9	2.0	460	100.0
BOSTON	159	82.8	26	13.5	7	3.6	192	100.0
CLEVELAND	133	78.7	28	16.6	8	4.7	169	100.0
NEW ORLEANS	156	90.2	10	5.8	7	4.0	173	100.0
PITTSBURGH	275	84.9	24	7.4	25	7.7	324	100.0
SAN FRANCISCO	288	97.3	7	2.4	1	.3	296	100.0
SEATTLE	127	74.7	30	17.6	13	7.6	170	100.0
ST LOUIS	256	77.1	47	14.2	29	8.7	332	100.0
WASHINGTON DC	156	86.2			25	13.8	181	100.0
CLASS 2 CITIES	2016	85.9	207	8.8	125	5.3	2348	100.0
BIRMINGHAM	60	74.1	14	17.3	7	8.6	81	100.0
LOUISVILLE	83	70.9	30	25.6	4	3.4	117	100.0
MINNEAPOLIS	42	95.5	1	2.3	1	2.3	44	100.0
NEWARK	98	84.5	11	9.5	7	6.0	116	100.0
ESSEX COUNTY	34	58.6	20	34.5	4	6.9	58	100.0
NORFOLK	59	76.6	9	11.7	9	11.7	77	100.0
OMAHA	142	70.0	30	14.8	31	15.3	203	100.0
PORTLAND	356	70.8	109	21.7	38	7.6	503	100.0
ROCHESTER	229	77.6	44	14.9	22	7.5	295	100.0
CLASS 3 CITIES	1103	73.8	268	17.9	123	8.2	1494	100.0
ALL CITIES COMBINED	4647	81.1	735	12.8	351	6.1	5733	100.0

SUMMARY

1. Even those attending college or as non-college school do so mainly in the city in which they attended high school. Houston is the notable exception.

CHAPTER 6. ANALYSIS BY TYPE OF VOCATIONAL PROGRAM

THE ISSUE

The purpose of comparing the survey data for the basic fields (programs) of vocational education is identifying those that are a problem in need of further study and/or corrective action to improve performance relative to the objectives derived from the manpower conversion objectives. Each table herein presented has been discussed under its equivalent topic section in Chapter 3. A brief summary of conslusions drawn from each table appears at the bottom of the table. For more details, consult the discussion in Chapter 3.

SUMMARY OF FINDINGS

A summary of the findings in terms of vocational program (field) differences is listed below:

TABLE	TITLE	DIFFERENCE
6.1	Order of Choice for Vocational Course Taken	Substantial
6.2	Sources of Influence on Vocational Course Selection	Significant
6.3	Occupational Information at Time of Course Choice	Significant
6.4	Plans to Work in Occupation After High School	Substantial
6.5.1	Present Status of Class of '70 Graduates	Substantial
6.5.2	Present Status of Class of '70 (Multiple Response)	Substantial
6.6	Stability of Employment with First Employer	Substantial
6.7.1	Time Required to Find First Job	Substantial
6.7.2	Steadiness of Job-Hunting Prior First Job	Significant
6.8	Methods Used to Obtain First Full-Time Job	Significant
6.10	Relation of Present Job to Vocational Course	Substantial
6.11	Adequacy of Vocational Training for Present Job	Minor
6.12	Reasons for Present Job Not Being in Field of Study	Significant
6.13	Hourly Earnings on Present Full-Time Job	Significant
6.14	Relation of Present Studies to Vocational Course	Substantial
6.15	Discussion of Post-High School Education with Counselor	Significant
6.16.1-3	Present Residence of Class of '70 Graduates	Minor

TABLE 6.1 ORDER OF CHOICE OF VOCATIONAL COURSE TAKEN (ALL VOCATIONAL GRADUATES)

DID YOU GET TO TAKE THE COURSE OF YOUR 1ST, 2ND OR 3RD CHOICE	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRI BUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICUL TURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
FIRST CHOICE	11135	78.1	2088	80.4	315	86.3	857	69.3	5012	81.5	218	83.2	140	66.4	65	69.1
SECOND CHOICE	1509	10.6	237	9.1	28	7.7	136	11.0	614	10.0	19	7.3	29	13.7	14	14.9
THIRD CHOICE	407	2.9	74	2.9	9	2.5	50	4.0	130	2.1	7	2.7	11	5.2	6	6.4
NO CHOICE AVAILABLE	1206	8.5	197	7.6	13	3.6	193	15.6	394	6.4	18	6.9	31	14.7	9	9.6
TOTAL	14257	100.0	2596	100.0	365	100.0	1236	100.0	6150	100.0	262	100.0	211	100.0	94	100.0

SUMMARY

1. There are substantial differences among the basic vocational fields in terms of the percentages of graduates reporting that they got the vocational course of their preferred choice.

2. The programs performing best on this variable are (1) Technical (86% 1st Choice), (2) Business Education (82% 1st Choice) and (3) Trade and Industrial (80% 1st Choice).

3. The programs performing the poorest are (1) Distributive Education (69% 1st Choice), (2) Agriculture (69% 1st Choice) and (3) Gainful Home Economics (66% 1st Choice).

TABLE 6.2 SOURCES OF INFLUENCE ON VOCATIONAL COURSE SELECTION (ALL VOCATIONAL GRADUATES)

ASIDE FROM YOURSELF, WHO INFLUENCED YOUR VOCATIONAL COURSE CHOICE THE MOST	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRIBUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICULTURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
GUIDANCE COUNSELOR	2132	15.3	313	12.6	58	16.6	195	16.0	954	15.7	37	15.1	46	22.3	14	14.9
VOCATIONAL TEACHER	1858	13.4	345	13.8	41	11.7	195	16.0	609	10.0	22	9.0	38	18.4	29	30.9
OTHER SCHOOL PERSONNEL	681	4.9	119	4.8	35	10.0	63	5.2	265	4.4	11	4.5	5	2.4	6	6.4
PARENTS	3698	26.6	633	25.4	82	23.5	241	19.7	1918	31.6	84	34.3	36	17.5	15	16.0
BROTHER / SISTER	931	6.7	140	5.6	14	4.0	75	6.1	470	7.7	5	2.0	9	4.4	8	8.5
RELATIVE / FAMILY FRIEND	1244	8.9	260	10.4	39	11.2	84	6.9	538	8.9	24	9.8	17	8.3	7	7.4
FRIENDS OF YOUR AGE GROUP	1998	14.4	402	16.1	48	13.8	226	18.5	813	13.4	33	13.5	32	15.5	7	7.4
SOMEONE OTHER THAN ABOVE	1371	9.9	281	11.3	32	9.2	143	11.7	504	8.3	29	11.8	23	11.2	8	8.5
TOTAL	13913	100.0	2493	100.0	349	100.0	1222	100.0	6071	100.0	245	100.0	206	100.0	94	100.0

SUMMARY

1. There are significant program differences in terms of the percentages of school personnel acknowledged by graduates as the most important source of influence on vocational course selection, i.e. Health (29%), Business Education (30%), Trade & Industrial (31%), Distributive Education (37%), Technical (38%), Gainful Home Economics (43%) and Agriculture (52%).
2. Parents are still the single most important source of vocational course selection influence in all but two program fields, i.e. Home Economics and Agriculture.

TABLE 6.3 INFORMATION ABOUT OCCUPATION AT TIME OF COURSE CHOICE (ALL VOCATIONAL GRADUATES)

HOW WELL INFORMED WERE YOU ABOUT THE OCCUPATION WHEN YOU MADE YOUR COURSE CHOICE	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRI BUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICUL TURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
EXCELLENT INFORMATION	2434	16.8	458	17.4	52	14.1	171	13.8	1095	17.5	61	23.1	35	16.8	26	26.5
GOOD INFORMATION	6897	47.6	1127	42.7	163	44.1	572	46.2	3229	51.5	128	48.5	97	46.6	39	39.8
FAIR INFORMATION	4036	27.9	792	30.0	112	30.3	368	29.7	1622	25.9	57	21.6	56	26.9	24	24.5
POOR INFORMATION	1117	7.7	261	9.9	43	11.6	126	10.2	323	5.2	18	6.8	20	9.6	9	9.2
TOTAL	14484	100.0	2638	100.0	370	100.0	1237	100.0	6269	100.0	264	100.0	208	100.0	98	100.0

SUMMARY

1. While there are significant differences in the percentages of graduates reporting excellent, good, fair and poor occupational information, no program stands out as exemplary. All share a problem of a large percentage of graduates reporting their precourse occupational information was poor or only fair. Health occupations showed the largest percentage reporting their occupational information was excellent or good (72%).

TABLE 4.4 PLANS TO WORK IN FIELD AT TIME OF COURSE CHOICE (ALL VOCATIONAL GRADUATES)

DID YOU PLAN TO WORK IN THAT OCCUPATION WHEN YOU SELECTED YOUR HIGH SCHOOL COURSE	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRI BUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICUL TURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
YES, DEFINITELY	5609	39.1	1066	40.9	157	43.1	326	26.7	2579	41.6	165	63.5	55	27.0	32	34.0
YES, BUT NOT DEFINITE	6656	46.4	1167	44.7	180	49.5	617	50.5	2921	47.1	76	29.2	100	49.0	40	42.6
NO, BUT NOT DEFINITE	1482	10.3	276	10.6	21	5.8	182	14.9	525	8.5	9	3.5	31	15.2	16	17.0
NO, DEFINITELY	585	4.1	100	3.8	6	1.6	96	7.9	181	2.9	10	3.8	18	8.8	6	6.4
TOTAL	14332	100.0	2609	100.0	364	100.0	1221	100.0	6206	100.0	260	100.0	204	100.0	94	100.0

SUMMARY

1. There are substantial differences between the program fields in terms of plans of students to work in the vocational course selected for study.
2. The three programs with the highest percentage of affirmative responses are Health Occupations (93%), Technical Occupations (92%), and Business Education (89%).

TABLE 6.5.1 PRESENT STATUS OF CLASS OF 70 GRADUATES (ALL VOCATIONAL GRADUATES)

WHAT IS YOUR PRESENT STATUS	TOTAL GRAD-UATES N	P	TRADE/ INDUS-TRIAL N	P	TECH-NICAL N	P	DISTRI BUTIVE EDUC N	P	BUSNESS EDUC N	P	HEALTH N	P	HOME ECON N	P	AGRICUL TURE N	P
EMPLOYED FT, NO COLLEGE/SCHOOL	5981	38.3	961	32.9	130	32.2	485	34.8	2937	45.1	67	24.6	54	23.8	36	33.0
EMPLOYED FT, COLLEGE FULL-TIME	86	.6	21	.7	4	1.0	11	.8	26	.4	3	1.1	2	.9		
EMPLOYED FT, COLLEGE PART-TIME	322	2.1	45	1.5	6	1.5	33	2.4	149	2.3			4	1.8	1	.9
EMPLOYED FT, SCHOOL FULL-TIME	34	.2	13	.4	2	.5			5	.1			2	.9		
EMPLOYED FT, SCHOOL PART-TIME	273	1.7	58	2.0	4	1.0	18	1.3	111	1.7	1	.4	4	1.8	1	.9
EMPLOYED FT, TOTAL	6696	42.8	1098	37.6	146	36.1	547	39.2	3228	49.6	71	26.1	66	29.1	38	34.9
EMPLOYED PT, NO COLLEGE/SCHOOL	582	3.7	126	4.3	16	4.0	79	5.7	206	3.2	8	2.9	9	4.0	6	5.5
EMPLOYED PT, COLLEGE FULL-TIME	1072	6.9	215	7.4	35	8.7	135	9.7	409	6.3	26	9.6	8	3.5	11	10.1
EMPLOYED PT, COLLEGE PART-TIME	199	1.3	33	1.1	3	.7	31	2.2	78	1.2	2	.7	6	2.6		
EMPLOYED PT, SCHOOL FULL-TIME	125	.8	33	1.1	14	3.5	3	.2	39	.6	3	1.1	2	.9	1	.9
EMPLOYED PT, SCHOOL PART-TIME	82	.5	20	.7	3	.7	11	.8	24	.4	1	.4	3	1.3		
EMPLOYED PT, TOTAL	2060	13.2	427	14.6	71	17.6	259	18.6	756	11.6	40	14.7	28	12.3	18	16.5
UNEMPLOYED,L,NO COLLEGE/SCHOOL	1850	11.8	294	10.1	24	5.9	155	11.1	807	12.4	25	9.2	40	17.6	7	6.4
UNEMPLOYED,L,COLLEGE FULL-TIME	494	3.2	107	3.7	11	2.7	49	3.5	179	2.7	11	4.0	13	5.7	4	3.7
UNEMPLOYED,L,COLLEGE PART-TIME	121	.8	21	.7			11	.8	43	.7			3	1.3	1	.9
UNEMPLOYED,L,SCHOOL FULL-TIME	86	.6	21	.7	9	2.2	4	.3	25	.4			2	.9		
UNEMPLOYED,L,SCHOOL PART-TIME	84	.5	15	.5			9	.6	36	.6	1	.4	2	.9		
UNEMPLOYED,L,TOTAL	2635	16.9	458	15.7	44	10.9	228	16.3	1090	16.7	37	13.6	60	26.4	12	11.0
UNEMPLOYD,NL,NO COLLEGE/SCHOOL	278	1.8	44	1.5	4	1.0	29	2.1	129	2.0	6	2.2	3	1.3	1	.9
UNEMPLOYD,NL,COLLEGE FULL-TIME	2381	15.2	487	16.7	83	20.5	169	12.1	887	13.6	84	30.9	47	20.7	28	25.7
UNEMPLOYD,NL,COLLEGE PART-TIME	96	.6	14	.5			12	.9	40	.6	4	1.5	1	.4		
UNEMPLOYD,NL,SCHOOL FULL-TIME	360	2.3	80	2.7	10	2.5	30	2.2	145	2.2	19	7.0	11	4.8	2	1.8
UNEMPLOYD,NL,SCHOOL PART-TIME	81	.5	14	.5	2	.5	6	.4	40	.6	1	.4	3	1.3		
UNEMPLOYD,NL,TOTAL	3196	20.5	639	21.9	99	24.5	246	17.6	1241	19.1	114	41.9	65	28.6	31	28.4
MILITARY SERVICE	845	5.4	270	9.2	38	9.4	91	6.5	108	1.7	6	2.2	3	1.3	10	9.2
OTHER THAN ABOVE	196	1.3	30	1.0	6	1.5	24	1.7	87	1.3	4	1.5	5	2.2		
TOTAL	15628	100.0	2922	100.0	404	100.0	1395	100.0	6510	100.0	272	100.0	227	100.0	109	100.0

SUMMARY

1. There are no substantial program differences in post-high school employment status of Class of '70 graduates. Consult table for details.

TABLE 6.5.2 PRESENT STATUS OF CLASS OF 70 GRADUATES (ALL VOCATIONAL GRADUATES)

WHAT IS YOUR PRESENT STATUS (MULTIPLE RESPONSES)	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRI BUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICUL TURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
EMPLOYED FULL-TIME	6696	42.8	1098	37.6	146	36.1	547	39.2	3228	49.6	71	26.1	66	29.1	38	34.9
EMPLOYED PART-TIME	2060	13.2	427	14.6	71	17.6	259	18.6	756	11.6	40	14.7	28	12.3	18	16.5
UNEMPLOYED, LOOKING FOR WORK..	2635	16.9	458	15.7	44	10.9	228	16.3	1090	16.7	37	13.6	60	26.4	12	11.0
UNEMPLOYED, NOT LOOKING	868	5.6	163	5.6	20	5.0	77	5.5	368	5.7	33	12.1	17	7.5	4	3.7
COLLEGE FULL-TIME	4033	25.8	830	28.4	133	32.9	364	26.1	1501	23.1	124	45.6	70	30.8	43	39.4
COLLEGE PART-TIME	738	4.7	113	3.9	9	2.2	87	6.2	310	4.8	6	2.2	14	6.2	2	1.8
SCHOOL FULL-TIME	605	3.9	147	5.0	35	8.7	37	2.7	214	3.3	22	8.1	17	7.5	3	2.8
SCHOOL PART-TIME	520	3.3	107	3.7	9	2.2	44	3.2	211	3.2	4	1.5	12	5.3	1	.9
MILITARY SERVICE	845	5.4	270	9.2	38	9.4	91	6.5	108	1.7	6	2.2	3	1.3	10	9.2
OTHER THAN ABOVE	196	1.3	30	1.0	6	1.5	24	1.7	87	1.3	4	1.5	5	2.2		
TOTAL	15628		2922		404		1395		6510		272		227		109	

SUMMARY

1. There are substantial differences among the program fields in terms of almost all present status variables.
2. The programs with the highest percentage employed full-time are Business Education (49%), Distributive Education (39%), and Trade and Industrial (38%).
3. The programs with the highest percentage attending college are Health (48%), Agriculture (41%) and Gainful Home Economics (37%).

TABLE 6.6 STABILITY WITH FIRST JOB EMPLOYER (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

IS YOUR PRESENT JOB YOUR FIRST JOB SINCE HIGH SCHOOL	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRI BUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICUL TURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
YES	4218	71.9	635	67.2	84	66.1	328	69.6	2197	76.0	53	82.8	33	64.7	24	72.7
NO	1646	28.1	310	32.8	43	33.9	143	30.4	692	24.0	11	17.2	18	35.3	9	27.3
TOTAL	5864	100.0	945	100.0	127	100.0	471	100.0	2889	100.0	64	100.0	51	100.0	33	100.0

SUMMARY

1. There are substantial program differences in stability of employment with the first employer.
2. The greatest stability is shown by graduates from Health (83%), Business Education (76%) and Agriculture (73%) programs.
3. Gainful Home Economics graduates apparently have the least first employer stability.

TABLE 6.7.1 TIME REQUIRED TO OBTAIN FIRST FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

HOW MANY WEEKS AFTER HIGH SCHOOL DID IT TAKE TO GET YOUR FIRST JOB	TOTAL GRAD-UATES N	P	TRADE/ INDUS-TRIAL N	P	TECH-NICAL N	P	DISTRI BUTIVE EDUC N	P	BUSNESS EDUC N	P	HEALTH N	P	HOME ECON N	P	AGRICUL TURE N	P
IMMEDIATELY	2040	38.0	360	40.7	40	35.4	221	51.6	931	35.6	22	33.8	15	30.6	15	46.9
1 - 2 WEEKS	1233	23.0	195	22.1	23	20.4	60	14.0	656	25.1	19	29.2	9	18.4	9	28.1
3 - 4 WEEKS	642	12.0	112	12.6	14	12.4	44	10.3	295	11.3	10	15.4	3	6.1	4	12.5
5 - 6 WEEKS	295	5.5	49	5.5	7	6.2	23	5.4	139	5.3	6	9.2	1	2.0	1	3.1
7 - 8 WEEKS	308	5.7	48	5.4	7	6.2	19	4.4	157	6.0	2	3.1	7	14.3		
9 - 10 WEEKS	385	7.2	52	5.9	10	8.8	29	6.8	195	7.4	4	6.2	8	16.3	2	6.2
11 - 12 WEEKS	217	4.0	30	3.4	6	5.3	15	3.5	120	4.6	1	1.5	4	8.2		
13 - 14 WEEKS	85	1.6	13	1.5	1	.9	4	1.4	37						1	3.1
15 - 16 WEEKS	71	1.3	8	.9	1	.9	5	1.2	43	1.6						
MORE THAN 4 MONTHS	92	1.7	17	1.9	4	3.5	8	1.9	44	1.7	1	1.5	2	4.1		
TOTAL	5368	100.0	885	100.0	113	100.0	428	100.0	2617	100.0	65	100.0	49	100.0	32	100.0
MEAN WEEKS		3.36		3.10		3.87		2.87		3.48		2.74		4.87		2.04

SUMMARY

1. There are substantial program differences in time required by graduates to get their first full-time job. Consult table for details.
2. The mean weeks to get the first job range from a low of 2.0 (Agriculture) to a high of 4.9 (Gainful Home Economics).

TABLE 6.7.2 ACTIVITY IN LOOKING FOR A JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

WERE YOU LOOKING FOR A JOB DURING MOST OF THAT TIME	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRI BUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICUL TURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
YES	1711	43.3	265	44.2	38	42.2	107	37.4	855	42.7	13	25.5	16	42.1	11	55.0
NO	2241	56.7	335	55.8	52	57.8	179	62.6	1147	57.3	38	74.5	22	57.9	9	45.0
TOTAL	3952	100.0	600	100.0	90	100.0	286	100.0	2002	100.0	51	100.0	38	100.0	20	100.0

SUMMARY

1. There are significant differences between the program fields on this variable, which we believe reflect differences in employment opportunities.

TABLE 6.8 METHODS USED TO OBTAIN FIRST FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

METHOD USED TO GET FIRST JOB AFTER HIGH SCHOOL	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRIBUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICULTURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
ALREADY HAD JOB WITH EMPLOYER	1559	26.6	283	29.9	27	21.3	185	39.2	708	24.5	9	14.1	14	27.5	9	25.7
THRU VOCATIONAL TEACHER	481	8.2	77	8.1	13	10.2	36	7.6	223	7.7	13	20.3	1	2.0	6	17.1
THRU SCHOOL COUNSELOR	208	3.5	36	3.8			6	1.3	118	4.1	3	4.7	3	5.9		
THRU SCHOOL PLACEMENT OFFICE..	477	8.1	61	6.4	10	7.9	18	3.8	296	10.3	7	10.9	3	5.9		
THRU OTHER SCHOOL PERSONNEL ..	101	1.7	13	1.4	4	3.1	5	1.1	52	1.8	2	3.1	2	3.9		
PRIVATE EMPLOYMENT AGENCY	266	4.5	21	2.2	3	2.4	24	5.1	173	6.0			1	2.0	3	8.6
STATE EMPLOYMENT AGENCY	246	4.2	30	3.2	3	2.4	13	2.8	140	4.9	1	1.6	6	11.8	1	2.9
THRU PARENT OR RELATIVE	336	5.7	74	7.8	11	8.7	29	6.1	123	4.3	2	3.1	2	3.9	2	5.7
THRU FAMILY/PERSONAL FRIEND ..	728	12.4	131	13.8	18	14.2	42	8.9	340	11.8	4	6.3	8	15.7	6	17.1
ON MY OWN, WITHOUT ANY HELP ..	1458	24.9	220	23.3	38	29.9	114	24.2	712	24.7	23	35.9	11	21.6	8	22.9
TOTAL	5860	100.0	946	100.0	127	100.0	472	100.0	2885	100.0	64	100.0	51	100.0	35	100.0

SUMMARY

1. The program differences are not pronounced for the percentages who (1) already had a job prior graduation and (2) obtained job on their own, without any help.
2. Distributive Education has a relatively high percent who "Already had a job with their employer" (39%) because of the cooperative nature of most such courses.
3. The program differences, in general, are less impressive than the basic similarity.

TABLE 6.10 RELATION OF PRESENT JOB TO VOCATIONAL COURSE (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

HOW RELATED IS YOUR PRESENT JOB TO YOUR HIGH SCHOOL OCCUPATIONAL COURSE	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRI BUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICUL TURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
SAME OCCUPATION STUDIED	1277	22.2	222	23.8	20	16.0	78	16.7	671	23.6	33	53.2	8	16.3	2	5.9
HIGHLY RELATED	1291	22.4	117	12.5	18	14.4	92	19.7	802	28.2	9	14.5	3	6.1	8	23.5
SLIGHTLY RELATED	1385	24.1	173	18.5	29	23.2	136	29.1	801	28.2	9	14.5	10	20.4	9	26.5
COMPLETELY UNRELATED	1805	31.3	421	45.1	58	46.4	162	34.6	568	20.0	11	17.7	28	57.1	15	44.1
TOTAL	5758	100.0	933	100.0	125	100.0	468	100.0	2842	100.0	62	100.0	49	100.0	34	100.0
MEAN RELATEDNESS*		2.35		2.15		2.00		2.18		2.55		3.03		1.82		1.91

*The rating scale was as follows: 4 - same occupation studied, 3 - highly related (to occupation studied), 2 - slightly related (to occupation studied), 1 - completely unrelated (to occupation studied).

SUMMARY

1. Some programs have more difficulty than others in placing their graduates into the field for which trained.
2. The best placement performance was in Health Occupations (68%), and the poorest performance was in Gainful Home Economics (22%).

TABLE 6J1 ADEQUACY OF TRAINING FOR PRESENT JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME IN FIELD OF STUDY)

	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRI BUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICUL TURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
HOW WELL DID YOUR HIGH SCHOOL OCCUPATIONAL COURSE PREPARE YOU FOR YOUR PRESENT JOB (GRADUATES EMPLOYED IN FIELD)																
EXCELLENT PREPARATION	989	40.1	141	42.7	13	35.1	49	30.2	588	41.7	18	47.4	7	63.6	4	44.4
GOOD PREPARATION	1354	54.9	154	46.7	20	54.1	104	64.2	785	55.6	20	52.6	2	18.2	4	44.4
FAIR PREPARATION	107	4.3	31	9.4	4	10.8	9	5.6	36	2.6			2	18.2	1	11.1
POOR PREPARATION	16	.6	4	1.2					2	.1						
TOTAL	2466	100.0	330	100.0	37	100.0	162	100.0	1411	100.0	38	100.0	11	100.0	9	100.0

SUMMARY

1. The small number of cases in some program fields make it inadvisable to draw conclusions about program differences on this variable.

TABLE 6.12 REASONS FOR PRESENT JOB NOT IN FIELD OF STUDY (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME OUT OF FIELD OF STUDY)

WHAT WAS THE MAIN REASON FOR NOT GETTING PRESENT JOB IN OCCUPATION STUDIED (GRADS NOT EMPLOYED IN FIELD)	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRI BUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICUL TURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
TRIED; BUT COULD NOT FIND JOB	509	19.3	85	16.6	15	19.7	36	14.3	214	19.7	3	25.0	8	23.5	1	4.5
NOT ACCEPTED AS APPRENTICE ...	100	3.8	32	6.3	4	5.3	6	2.4	19	1.7					2	9.1
NOT SUFFICIENTLY QUALIFIED ...	359	13.6	70	13.7	16	21.1	23	9.2	162	14.9	2	16.7	1	2.9	2	9.1
DID NOT LIKE THAT TYPE WORK ..	304	11.5	65	12.7	6	7.9	34	13.5	131	12.0	1	8.3	3	8.8	3	13.6
EARNINGS TOO LOW IN THAT JOB..	88	3.3	12	2.3			19	7.6	25	2.3	1	8.3	2	5.9	2	9.1
NO ADVANCEMENT OPPORTUNITY ...	68	2.6	15	2.9	3	3.9	14	5.6	18	1.7			1	2.9		
BETTER JOB CAME ALONG FIRST ..	292	11.1	44	8.6	8	10.5	31	12.4	125	11.5			2	5.9	4	18.2
NEVER PLANNED TO WORK IN FIELD	265	10.0	57	11.1	1	1.3	30	12.0	99	9.1	4	33.3	6	17.6	3	13.6
REASON OTHER THAN ABOVE	653	24.8	132	25.8	23	30.3	58	23.1	296	27.2	1	8.3	11	32.4	5	22.7
TOTAL	2638	100.0	512	100.0	76	100.0	251	100.0	1089	100.0	12	100.0	34	100.0	22	100.0

SUMMARY

1. There are significant program differences in reasons given by graduates for not getting a job in the occupational field studied, but the small number of cases for some programs make it inadvisable to regard the percentages as reliable, e.g. health, agriculture, and gainful home economics.

TABLE 6.13 HOURLY EARNINGS ON PRESENT FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

WHAT IS YOUR PRESENT HOURLY PAY RATE (BEFORE DEDUCTIONS)	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRI BUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICUL TURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
1.00 - 1.49	148	2.6	35	3.9	1	.8	10	2.2	64	2.3	1	1.8	4	8.3		
1.50 - 1.99	1409	25.1	193	21.3	25	20.2	182	39.8	730	26.6	8	14.0	27	56.3	7	20.6
2.00 - 2.49	2334	41.5	282	31.2	51	41.1	162	35.4	1358	49.4	11	19.3	13	27.1	12	35.3
2.50 - 2.99	1064	18.9	208	23.0	25	20.2	66	14.4	452	16.4	20	35.1	2	4.2	11	32.4
3.00 - 3.49	369	6.6	90	10.0	13	10.5	18	3.9	81	2.9	13	22.8	1	2.1	1	2.9
3.50 - 3.99	168	3.0	61	6.7	5	4.0	11	2.4	31	1.1	2	3.5			2	5.9
4.00 AND OVER	130	2.3	35	3.9	4	3.2	8	1.8	32	1.2	2	3.5	1	2.1	1	2.9
TOTAL	5622	100.0	904	100.0	124	100.0	457	100.0	2748	100.0	57	100.0	48	100.0	34	100.0
MEAN EARNINGS		2.35		2.50		2.47		2.21		2.24		2.69		1.97		2.49

SUMMARY

1. There are significant program differences in mean hourly earnings of graduates. A previous table (3.26) provides the earnings of those employed in and out of their field for each program area.

TABLE 6.14 RELATION OF PRESENT STUDIES TO HIGH SCHOOL COURSE (VOCATIONALS PRESENTLY ATTENDING COLLEGE OR SCHOOL)

ARE YOUR PRESENT STUDIES OR PLANNED COLLEGE MAJOR RELATED TO YOUR HS OCCUPATIONAL COURSE	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRI BUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICUL TURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
YES	3208	57.9	625	55.7	139	79.0	242	48.8	1288	61.1	124	81.6	49	49.0	26	55.3
NO	2336	42.1	497	44.3	37	21.0	254	51.2	821	38.9	28	18.4	51	51.0	21	44.7
TOTAL	5544	100.0	1123	100.0	176	100.0	496	100.0	2109	100.0	152	100.0	100	100.0	47	100.0

SUMMARY

1. There are substantial program differences. Notice that 81% of the health occupations graduates who continue to college or a non-college school continue their studies in the health occupations field. Contrast that percentage with the one for gainful home economics graduates.

TABLE 6.15 DISCUSSION OF POST-HIGH SCHOOL EDUCATION WITH COUNSELOR (VOCATIONALS PRESENTLY ATTENDING COLLEGE OR SCHOOL)

DID YOU DISCUSS YOUR COLLEGE OR SCHOOL PLANS WITH YOUR HIGH SCHOOL COUNSELOR	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRI BUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICUL TURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
YES	3348	60.2	681	60.1	124	70.9	284	56.5	1220	57.8	112	74.7	58	54.7	33	71.7
NO	2213	39.8	452	39.9	51	29.1	219	43.5	889	42.2	38	25.3	48	45.3	13	28.3
TOTAL	5561	100.0	1133	100.0	175	100.0	503	100.0	2109	100.0	150	100.0	106	100.0	46	100.0

SUMMARY

1. The program differences are significant. Apparently, the graduates from some programs are closer to their counselors. Again, notice the high percentage of health occupations graduates who report discussion of post-high school education plans with their counselors.

TABLE 6.16.1 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (ALL VOCATIONAL GRADUATES)

WHERE ARE YOU NOW LOCATED	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRI BUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICUL TURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
SAME CITY AS HIGH SCHOOL	12523	88.3	2213	85.9	310	85.6	1104	87.3	5497	90.6	230	88.5	183	84.7	63	70.0
SAME STATE, DIFFERENT CITY ...	1058	7.5	237	9.2	35	9.7	85	6.7	394	6.5	18	6.9	27	12.5	18	20.0
DIFFERENT STATE	595	4.2	127	4.9	17	4.7	76	6.0	176	2.9	12	4.6	6	2.8	9	10.0
TOTAL	14176	100.0	2577	100.0	362	100.0	1265	100.0	6067	100.0	260	100.0	216	100.0	90	100.0

TABLE 6.16.2 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

WHERE ARE YOU NOW LOCATED (GRADS PRESENTLY EMPLOYED)	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRI BUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICUL TURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
SAME CITY AS HIGH SCHOOL	5181	94.6	818	93.3	105	88.2	432	95.8	2549	95.0	60	96.8	49	98.0	29	90.6
SAME STATE, DIFFERENT CITY ...	225	4.1	50	5.7	12	10.1	11	2.4	101	3.8	2	3.2	1	2.0	3	9.4
DIFFERENT STATE	72	1.3	9	1.0	2	1.7	8	1.8	33	1.2						
TOTAL	5478	100.0	877	100.0	119	100.0	451	100.0	2683	100.0	62	100.0	50	100.0	32	100.0

TABLE 6.16.3 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (VOCATIONALS PRESENTLY ATTENDING COLLEGE OR SCHOOL)

WHERE ARE YOU NOW LOCATED (ATTENDING COLLEGE/SCHOOL)	TOTAL GRAD-UATES		TRADE/ INDUS-TRIAL		TECH-NICAL		DISTRI BUTIVE EDUC		BUSNESS EDUC		HEALTH		HOME ECON		AGRICUL TURE	
	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P
SAME CITY AS HIGH SCHOOL	4647	81.1	922	79.1	152	84.0	410	78.5	1817	83.8	128	83.7	82	73.9	25	52.1
SAME STATE, DIFFERENT CITY ...	735	12.8	163	14.0	20	11.0	66	12.6	256	11.8	16	10.5	24	21.6	15	31.3
DIFFERENT STATE	351	6.1	81	6.9	9	5.0	46	8.8	95	4.4	9	5.9	5	4.5	8	16.7
TOTAL	5733	100.0	1166	100.0	181	100.0	522	100.0	2168	100.0	153	100.0	111	100.0	48	100.0

SUMMARY

1. The similarity of the data is impressive, not the differences between programs.

Project Metro

CHAPTER 7 (PART I). ANALYSIS BY RACE OF GRADUATE

THE ISSUE

The purpose of comparing the survey data from black and white graduates was to identify those variables for which racial differences are substantial and warrant further study and/or corrective actions to bring the data more in line with the basic objectives derived from the manpower conversion equation (Chapter I). Each table presented herein has been discussed under its equivalent topic section in Chapter 3. A brief summary of the conclusions drawn from each table appears at the bottom of each table. For more details, consult the discussion in Chapter 3.

SUMMARY OF FINDINGS

A summary of the findings in terms of black-white differences is listed below.

TABLE	TITLE	DIFFERENCE
7.1	Order of Choice for Vocational Course Taken	Substantial
7.2	Sources of Influence on Vocational Course Selection	Significant
7.3	Occupational Information at Time of Course Choice	Negligible
7.4	Plans to Work in Occupation After High School	None
7.5.1	Present Status of Class of '70 Graduates	Substantial
7.5.2	Present Status of Class of '70 (Multiple Response)	Substantial
7.6	Stability of Employment with First Employer	Significant
7.7.1	Time Required to Find First Job	Substantial
7.7.2	Steadiness of Job-Hunting Prior First Job	Significant
7.8	Methods Used to Obtain First Full-Time Job	Mixed
7.10	Relation of Present Job to Vocational Course	Substantial
7.11	Adequacy of Vocational Training for Present Job	None
7.12	Reasons for Present Job Not Being in Field of Study	Negligible
7.13	Hourly Earnings on Present Full-Time Job	Mixed
7.14	Relation of Present Studies to Vocational Course	Negligible
7.15	Discussion of Post-High School Education with Counselor	Negligible
7.16.1-3	Present Residence of Class of '70 Graduates	None

TABLE 7.1 ORDER OF CHOICE OF VOCATIONAL COURSE TAKEN (ALL VOCATIONAL GRADUATES) (RACE ANALYSIS)

DID YOU GET TO TAKE THE COURSE OF YOUR 1ST, 2ND OR 3RD CHOICE	TOTAL GRADS WHITE	TOTAL GRADS BLACK	TRADE/INDUST WHITE	TRADE/INDUST BLACK	TECHNICAL WHITE	TECHNICAL BLACK	DISTRIB EDUC WHITE	DISTRIB EDUC BLACK	BUSINESS WHITE	BUSINESS BLACK	HEALTH WHITE	HEALTH BLACK	HOME ECON WHITE	HOME ECON BLACK
FIRST CHOICE	4721	3053	970	519	228	72	419	137	2082	1397	60	113	77	59
	84.3	70.4	85.2	72.3	91.6	75.0	78.8	60.4	87.1	73.1	88.2	80.7	74.8	57.8
SECOND CHOICE	473	640	80	106	15	11	46	43	192	271	3	10	12	16
	8.4	14.8	7.0	14.8	6.0	11.5	8.6	18.9	8.0	14.2	4.4	7.1	11.7	15.7
THIRD CHOICE	83	193	16	32	2	5	13	15	24	77		5	3	8
	1.5	4.5	1.4	4.5	.8	5.2	2.4	6.6	1.0	4.0		3.6	2.9	7.8
NO CHOICE AVAILABLE	325	451	72	61	4	8	54	32	92	166	5	12	11	19
	5.8	10.4	6.3	8.5	1.6	8.3	10.2	14.1	3.8	8.7	7.4	8.6	10.7	18.6
TOTAL	5602	4337	1138	718	249	96	532	227	2390	1911	68	140	103	102
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SUMMARY

1. Overall, white graduates are more likely to report getting the vocational course of their first choice than black graduates. We interpret this to mean that white students are more likely to get the course of their first choice than black students.

2. The white-black difference is more pronounced in some program fields than others. Distributive Education and Gainful Home Economics are the most severe problem areas for black students in terms of not getting the vocational course of their choice.

TABLE 7.2 SOURCES OF INFLUENCE ON VOCATIONAL COURSE SELECTION (ALL VOCATIONAL GRADUATES) (RACE ANALYSIS)

ASIDE FROM YOURSELF, WHO INFLUENCED YOUR VOCATIONAL COURSE CHOICE THE MOST	TOTAL GRADS WHITE	TOTAL GRADS BLACK	TRADE/INDUST WHITE	TRADE/INDUST BLACK	TECHNICAL WHITE	TECHNICAL BLACK	DISTRIB EDUC WHITE	DISTRIB EDUC BLACK	BUSINESS WHITE	BUSINESS BLACK	HEALTH WHITE	HEALTH BLACK	HOME ECON WHITE	HOME ECON BLACK
GUIDANCE COUNSELOR	717 13.2	803 18.7	140 12.8	91 13.0	28 11.9	26 27.7	68 12.9	47 20.5	296 12.6	408 21.4	8 13.1	21 15.8	21 21.9	23 22.1
VOCATIONAL TEACHER	700 12.9	623 14.5	133 12.2	113 16.2	29 12.3	8 8.5	90 17.0	47 20.5	231 9.9	205 10.8	4 6.6	9 6.8	20 20.8	18 17.3
OTHER SCHOOL PERSONNEL	223 4.1	256 6.0	44 4.0	39 5.6	19 8.1	14 14.9	21 4.0	15 6.6	87 3.7	106 5.6	1 1.6	9 6.8	1 1.0	4 3.8
PARENTS	1636 30.1	976 22.8	318 29.1	150 21.5	66 28.0	14 14.9	106 20.1	31 13.5	846 36.1	495 26.0	25 41.0	45 33.8	16 16.7	19 18.3
BROTHER / SISTER	377 6.9	241 5.6	64 5.9	30 4.3	10 4.2	3 3.2	39 7.4	7 3.1	179 7.6	136 7.1		4 3.0	4 4.2	5 4.8
RELATIVE / FAMILY FRIEND	480 8.8	416 9.7	124 11.3	84 12.0	29 12.3	10 10.6	26 4.9	19 8.3	203 8.7	173 9.1	6 9.8	14 10.5	5 5.2	12 11.5
FRIENDS OF YOUR AGE GROUP	803 14.8	603 14.1	162 14.8	116 16.6	33 14.0	9 9.6	121 22.9	39 17.0	325 13.9	247 13.0	8 13.1	18 13.5	15 15.6	15 14.4
SOMEONE OTHER THAN ABOVE	508 9.3	366 8.5	109 10.0	75 10.7	22 9.3	10 10.6	57 10.8	24 10.5	176 7.5	136 7.1	9 14.8	13 9.8	14 14.6	8 7.7
TOTAL	5444 100.0	4284 100.0	1094 100.0	698 100.0	236 100.0	94 100.0	528 100.0	229 100.0	2343 100.0	1906 100.0	61 100.0	133 100.0	96 100.0	104 100.0

SUMMARY

1. Overall, blacks are more likely than whites to be influenced by guidance counselors, and the converse is true for parents as a source of influence. Other combined program differences are negligible.
2. Differences within program fields are pronounced for different sources of influence.

TABLE 7.3 INFORMATION ABOUT OCCUPATION AT TIME OF COURSE CHOICE (ALL VOCATIONAL GRADUATES) (RACE ANALYSIS)

HOW WELL INFORMED WERE YOU ABOUT THE OCCUPATION WHEN YOU MADE YOUR COURSE CHOICE	TOTAL GRADS WHITE	TOTAL GRADS BLACK	TRADE/INDUST WHITE	TRADE/INDUST BLACK	TECHNICAL WHITE	TECHNICAL BLACK	DISTRIB EDUC WHITE	DISTRIB EDUC BLACK	BUSINESS WHITE	BUSINESS BLACK	HEALTH WHITE	HEALTH BLACK	HOME ECON WHITE	HOME ECON BLACK
EXCELLENT INFORMATION	939 16.6	776 17.4	204 17.6	130 17.8	33 13.1	15 15.2	84 15.8	29 12.5	408 16.9	359 18.2	14 20.3	34 24.3	16 16.3	19 18.3
GOOD INFORMATION	2682 47.5	2172 48.8	494 42.7	313 42.9	109 43.4	45 45.5	223 42.0	122 52.6	1274 52.8	1005 50.9	39 56.5	66 47.1	42 42.9	51 49.0
FAIR INFORMATION	1576 27.9	1206 27.1	352 30.4	219 30.0	75 29.9	31 31.3	165 31.1	65 28.0	614 25.4	511 25.9	11 15.9	32 22.9	26 26.5	28 26.9
POOR INFORMATION	454 8.0	300 6.7	107 9.2	68 9.3	34 13.5	8 8.1	59 11.1	16 6.9	119 4.9	98 5.0	5 7.2	8 5.7	14 14.3	6 5.8
TOTAL	5651 100.0	4454 100.0	1157 100.0	730 100.0	251 100.0	99 100.0	531 100.0	232 100.0	2415 100.0	1973 100.0	69 100.0	140 100.0	98 100.0	104 100.0

SUMMARY

1. For the combined program data, there is no significant difference between blacks and whites in terms of how well informed they were about the occupation before they made their course choice.

2. Within the program fields, the differences indicate that blacks report themselves to be better informed in Gainful Home Economics and Distributive Education than do whites. Other program differences are negligible.

TABLE 7.4 PLANS TO WORK IN FIELD AT TIME OF COURSE CHOICE (ALL VOCATIONAL GRADUATES) (RACE ANALYSIS)

DID YOU PLAN TO WORK IN THAT OCCUPATION WHEN YOU SELECTED YOUR HIGH SCHOOL COURSE	TOTAL GRADS WHITE	TOTAL GRADS BLACK	TRADE/INDUST WHITE	TRADE/INDUST BLACK	TECHNICAL WHITE	TECHNICAL BLACK	DISTRIB EDUC WHITE	DISTRIB EDUC BLACK	BUSINESS WHITE	BUSINESS BLACK	HEALTH WHITE	HEALTH BLACK	HOME ECON WHITE	HOME ECON BLACK
YES, DEFINITELY	2212 39.4	1824 41.6	508 44.3	287 39.9	108 43.5	46 47.4	133 25.1	58 25.8	1020 42.4	882 45.3	43 66.2	86 61.4	25 25.3	30 30.0
YES, BUT NOT DEFINITE	2616 46.6	1979 45.1	502 43.8	327 45.4	124 50.0	41 42.3	270 50.9	113 50.2	1140 47.3	867 44.6	17 26.2	42 30.0	46 46.5	49 49.0
NO, BUT NOT DEFINITE	576 10.3	394 9.0	107 9.3	72 10.0	11 4.4	9 9.3	91 17.2	32 14.2	192 8.0	135 6.9	2 3.1	7 5.0	14 14.1	17 17.0
NO, DEFINITELY	206 3.7	192 4.4	29 2.5	34 4.7	5 2.0	1 1.0	36 6.8	22 9.8	56 2.3	61 3.1	3 4.6	5 3.6	14 14.1	4 4.0
TOTAL	5610 100.0	4339 100.0	1146 100.0	720 100.0	248 100.0	97 100.0	530 100.0	225 100.0	2408 100.0	1945 100.0	65 100.0	140 100.0	99 100.0	100 100.0

SUMMARY

1. For the combined programs, the black-white differences are not significant.
2. The black-white differences within programs are not impressive. We conclude that there are no black-white differences in plans to work in the occupation at the time of vocational course selection.

TABLE 7.5.1 PRESENT STATUS OF CLASS OF 70 GRADUATES (ALL VOCATIONAL GRADUATES) (RACE ANALYSIS)

	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK
WHAT IS YOUR PRESENT STATUS														
EMPLOYED FT, NO COLLEGE/SCHOOL	2877 47.6	1488 31.3	526 41.2	218 27.4	94 34.7	33 29.5	246 41.5	74 29.0	1451 58.7	697 34.1	18 25.7	41 28.1	38 36.5	15 12.9
EMPLOYED FT, COLLEGE FULL-TIME	34 .6	27 .6	5 .4	8 1.0	4 1.5		7 1.2		9 .4	13 .6	2 2.9		2 1.9	
EMPLOYED FT, COLLEGE PART-TIME	76 1.3	119 2.5	12 .9	15 1.9	4 1.5	2 1.8	12 2.0	3 1.2	33 1.3	68 3.3			3 2.9	1 .9
EMPLOYED FT, SCHOOL FULL-TIME	13 .2	16 .3	5 .4	5 .6	2 .7				2 .1	3 .1			1 1.0	1 .9
EMPLOYED FT, SCHOOL PART-TIME	120 2.0	76 1.6	30 2.4	14 1.8	3 1.1	1 .9	6 1.0	4 1.6	44 1.8	36 1.8	1 1.4		3 2.9	1 .9
EMPLOYED FT, TOTAL	3120 51.6	1726 36.3	578 45.3	260 32.7	107 39.5	36 32.1	271 45.7	81 31.8	1539 62.3	817 40.0	21 30.0	41 28.1	47 45.2	18 15.4
EMPLOYED PT, NO COLLEGE/SCHOOL	219 3.6	204 4.3	50 3.9	44 5.5	11 4.1	4 3.6	42 7.1	12 4.7	69 2.8	78 3.8		8 5.5	3 2.9	5 4.3
EMPLOYED PT, COLLEGE FULL-TIME	387 6.4	252 5.3	90 7.1	45 5.7	29 10.7	6 5.4	58 9.8	20 7.8	123 5.0	99 4.8	5 7.1	15 10.3	3 2.9	4 3.4
EMPLOYED PT, COLLEGE PART-TIME	52 .9	51 1.1	10 .8	5 .6	2 .7	1 .9	10 1.7	3 1.2	19 .8	28 1.4		1 .7	3 2.9	3 2.6
EMPLOYED PT, SCHOOL FULL-TIME	61 1.0	28 .6	20 1.6	5 .6	11 4.1	2 1.8	3 .5		11 .4	9 .4	2 2.9		1 1.0	1 .9
EMPLOYED PT, SCHOOL PART-TIME	38 .6	22 .5	15 1.2	2 .3	2 .7	1 .9	6 1.0	3 1.2	7 .3	8 .4	1 1.4		1 1.0	2 1.7
EMPLOYED PT, TOTAL	757 12.5	557 11.7	185 14.5	101 12.7	55 20.3	14 12.5	119 20.1	38 14.9	229 9.3	222 10.9	8 11.4	24 16.4	11 10.6	15 12.8

SUMMARY

1. There are substantial black-white differences in post-high school employment status for all program areas. Consult table for details. A smaller percentage of blacks are employed full-time and a larger percentage are unemployed.

TABLE 7.5.1 PRESENT STATUS OF CLASS OF 70 GRADUATES CONTINUED (ALL VOCATIONAL GRADUATES) (RACE ANALYSIS)

	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
PRESENT STATUS (CONTINUED)	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK
UNEMPLOYED,L,NO COLLEGE/SCHOOL	504 8.3	877 18.4	98 7.7	129 16.1	16 5.9	8 7.1	46 7.8	46 18.0	218 8.8	415 20.3		20 13.7	11 10.6	29 25.0
UNEMPLOYED,L,COLLEGE FULL-TIME	106 1.8	221 4.6	25 2.0	43 5.4	3 1.1	8 7.1	12 2.0	14 5.5	32 1.3	86 4.2	4 5.7	6 4.1	4 3.8	8 6.8
UNEMPLOYED,L,COLLEGE PART-TIME	20 .3	54 1.1	6 .5	6 .8			2 .3	5 2.0	6 .2	18 .9				3 2.6
UNEMPLOYED,L,SCHOOL FULL-TIME	27 .4	39 .8	5 .4	10 1.3	6 2.2	3 2.7	2 .3	2 .8	7 .3	11 .5			2 1.9	
UNEMPLOYED,L,SCHOOL PART-TIME	21 .3	38 .8	5 .4	8 1.0			2 .3	5 2.0	7 .3	16 .8	1 1.4		2 1.9	
UNEMPLOYED,L,TOTAL	678 11.2	1229 25.8	139 10.9	196 24.6	25 9.2	19 17.0	64 10.8	72 28.2	270 10.9	546 26.7	5 7.1	26 17.8	19 18.3	40 34.2
UNEMPLOYD,NL,NO COLLEGE/SCHOOL	97 1.6	101 2.1	26 2.0	10 1.3	2 .7	1 .9	7 1.2	6 2.4	44 1.8	57 2.8	1 1.4	3 2.1	1 1.0	2 1.7
UNEMPLOYD,NL,COLLEGE FULL-TIME	753 12.4	716 15.0	150 11.8	138 17.3	44 16.2	26 23.2	64 10.8	30 11.8	243 9.8	270 13.2	27 38.6	31 21.2	18 17.3	28 23.9
UNEMPLOYD,NL,COLLEGE PART-TIME	22 .4	39 .8	2 .2	6 .8			2 .3	2 .8	13 .5	17 .8	1 1.4	2 1.4		1 .9
UNEMPLOYD,NL,SCHOOL FULL-TIME	153 2.5	117 2.5	48 3.8	16 2.0	6 2.2	4 3.6	15 2.5	7 2.7	53 2.1	45 2.2	4 5.7	13 8.9	2 1.9	8 6.8
UNEMPLOYD,NL,SCHOOL PART-TIME	32 .5	29 .6	10 .8	3 .4	2 .7		2 .3	2 .8	12 .5	17 .8		1 .7	1 1.0	2 1.7
UNEMPLOYD,NL,TOTAL	1057 17.5	1002 21.1	236 18.5	173 21.7	54 19.9	31 27.7	90 15.2	47 18.4	365 14.8	406 19.9	33 47.1	50 34.2	22 21.2	41 35.0
MILITARY SERVICE	348 5.8	200 4.2	125 9.8	61 7.7	27 10.0	9 8.0	37 6.2	13 5.1	32 1.3	33 1.6	1 1.4	4 2.7	1 1.0	2 1.7
OTHER THAN ABOVE	89 1.5	44 .9	13 1.0	5 .6	3 1.1	3 2.7	12 2.0	4 1.6	37 1.5	19 .9	2 2.9	1 .7	4 3.8	1 .9
TOTAL	6049	4758	1276	796	271	112	593	255	2472	2043	70	146	104	117

TABLE 7.5.2 PRESENT STATUS OF CLASS OF 70 GRADUATES (ALL VOCATIONAL GRADUATES) (RACE ANALYSIS)

	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	.BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK
WHAT IS YOUR PRESENT STATUS (MULTIPLE RESPONSES)														
EMPLOYED FULL-TIME	3120 51.6	1724 36.3	578 45.3	260 32.7	107 39.5	36 32.1	271 45.7	81 31.8	1539 62.3	815 40.0	21 30.0	41 28.1	47 45.2	18 15.5
EMPLOYED PART-TIME	757 12.5	557 11.7	185 14.5	101 12.7	55 20.3	14 12.5	119 20.1	38 14.9	229 9.3	222 10.9	8 11.4	24 16.4	11 10.6	15 12.9
UNEMPLOYED, LOOKING FOR WORK..	678 11.2	1228 25.8	139 10.9	195 24.5	25 9.2	19 17.0	64 10.8	72 28.2	270 10.9	546 26.8	5 7.1	26 17.8	19 18.3	40 34.5
UNEMPLOYED, NOT LOOKING	336 5.6	244 5.1	71 5.6	40 5.0	12 4.4	4 3.6	29 4.9	12 4.7	128 5.2	119 5.8	9 12.9	17 11.6	11 10.6	6 5.2
COLLEGE FULL-TIME	1280 21.2	1214 25.5	270 21.2	234 29.4	80 29.5	40 35.7	141 23.8	64 25.1	407 16.5	467 22.9	38 54.3	52 35.6	27 26.0	39 33.6
COLLEGE PART-TIME	170 2.8	262 5.5	30 2.4	32 4.0	6 2.2	3 2.7	26 4.4	13 5.1	71 2.9	130 6.4	1 1.4	3 2.1	6 5.8	8 6.9
SCHOOL FULL-TIME	254 4.2	200 4.2	78 6.1	36 4.5	25 9.2	9 8.0	20 3.4	9 3.5	73 3.0	68 3.3	6 8.6	13 8.9	6 5.8	10 8.6
SCHOOL PART-TIME	211 3.5	165 3.5	60 4.7	27 3.4	7 2.6	2 1.8	16 2.7	14 5.5	70 2.8	77 3.8	3 4.3	1 .7	7 6.7	5 4.3
MILITARY SERVICE	348 5.8	200 4.2	125 9.8	61 7.7	27 10.0	9 8.0	37 6.2	13 5.1	32 1.3	33 1.6	1 1.4	4 2.7	1 1.0	2 1.7
OTHER THAN ABOVE	89 1.5	44 .9	13 1.0	5 .6	3 1.1	3 2.7	12 2.0	4 1.6	37 1.5	19 .9	2 2.9	1 .7	4 3.8	1 .9
TOTAL	6049	4753	1276	795	271	112	593	255	2472	2040	70	146	104	116

SUMMARY

1. There are significant black-white differences in all program areas. The percentage of blacks employed full-time is less than for whites; the percentage unemployed and looking is greater; the percentage attending college is greater than for the whites.

TABLE 7.6 STABILITY WITH FIRST JOB EMPLOYER (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME) (RACE ANALYSIS)

IS YOUR PRESENT JOB YOUR FIRST JOB SINCE HIGH SCHOOL	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK
YES	2098 74.0	974 67.4	346 66.8	137 63.7	66 71.0	15 48.4	185 75.8	33 47.8	1136 79.3	482 70.9	13 72.2	33 86.8	25 69.4	8 57.1
NO	739 26.0	472 32.6	172 33.2	78 36.3	27 29.0	16 51.6	59 24.2	36 52.2	297 20.7	198 29.1	5 27.8	5 13.2	11 30.6	6 42.9
TOTAL	2837 100.0	1446 100.0	518 100.0	215 100.0	93 100.0	31 100.0	244 100.0	69 100.0	1433 100.0	680 100.0	18 100.0	38 100.0	36 100.0	14 100.0

SUMMARY

1. For the combined programs, a higher percentage of whites than blacks were still with their first employer at the time of the survey.
2. The above generalization holds for all programs except Health Occupations.
3. A large percentage of both races had, for unknown reasons, left their first employer within six months after high school.

TABLE 7.7.1 TIME REQUIRED TO OBTAIN FIRST FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME) (RACE ANALYSIS)

	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK
HOW MANY WEEKS AFTER HIGH SCHOOL DID IT TAKE TO GET YOUR FIRST JOB														
IMMEDIATELY	1030 39.2	429 32.2	227 44.5	52 26.3	30 37.5	8 26.7	130 57.3	31 49.2	460 35.2	197 31.7	9 50.0	9 24.3	8 25.0	7 43.8
1 - 2 WEEKS	615 23.4	285 21.3	114 22.4	41 20.7	17 21.2	5 16.7	30 13.2	10 15.9	334 25.6	144 23.0	5 27.8	10 27.0	6 18.8	3 18.7
3 - 4 WEEKS	296 11.3	193 14.4	57 11.2	43 21.7	10 12.5	4 13.3	20 8.8	7 11.1	146 11.2	74 11.8	1 5.6	7 18.9	2 6.2	1 6.2
5 - 6 WEEKS	146 5.6	93 7.0	28 5.5	14 7.1	5 6.2	2 6.7	9 4.0	4 6.3	73 5.6	38 6.1	2 11.1	4 10.8	1 3.1	
7 - 8 WEEKS	142 5.4	90 6.7	24 4.7	15 7.6	4 5.0	3 10.0	12 5.3	1 1.6	78 6.0	44 7.0		2 5.4	7 21.9	
9 - 10 WEEKS	170 6.5	120 9.0	28 5.5	14 7.1	8 10.0	2 6.7	11 4.8	8 12.7	93 7.1	56 9.0		4 10.8	4 12.5	4 25.0
11 - 12 WEEKS	109 4.2	66 4.9	19 3.7	6 3.0	3 3.8	3 10.0	7 3.1	2 3.2	59 4.5	40 6.4		1 2.7	3 9.4	1 6.4
13 - 14 WEEKS	31 1.2	24 1.8	1 .2	7 3.5	1 1.3		1 .4		17 1.3	8 1.3				
15 - 16 WEEKS	41 1.6	15 1.1	4 .8	2 1.0	1 1.3		3 1.3		24 1.8	12 1.9				
MORE THAN 4 MONTHS	44 1.7	21 1.6	8 1.6	4 2.0	1 1.3	3 10.0	4 1.8		23 1.8	11 1.8	1 5.6		1 3.1	
TOTAL	2624 100.0	1337 100.0	510 100.0	198 100.0	80 100.0	30 100.0	227 100.0	63 100.0	1307 100.0	625 100.0	18 100.0	37 100.0	32 100.0	16 100.0
MEAN WEEKS	3.24	3.82	2.75	4.03	3.43	5.36	2.50	2.66	3.49	3.99	2.19	3.40	5.12	3.59

SUMMARY

1. Blacks require substantially longer to find their first full-time job than do whites.
2. The generalization applies to all program areas but Gainful Home Economics.

TABLE 7.7.2 ACTIVITY IN LOOKING FOR A JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME) (RACE ANALYSIS)

WERE YOU LOOKING FOR A JOB DURING MOST OF THAT TIME	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK
YES	798 41.6	518 50.4	134 41.9	89 58.2	24 35.8	12 60.0	49 32.5	23 54.8	422 42.0	242 50.2	6 50.0	5 15.2	11 40.7	4 40.0
NO	1121 58.4	509 49.6	186 58.1	64 41.8	43 64.2	8 40.0	102 67.5	19 45.2	582 58.0	240 49.8	6 50.0	28 84.8	16 59.3	6 60.0
TOTAL	1919 100.0	1027 100.0	320 100.0	153 100.0	67 100.0	20 100.0	151 100.0	42 100.0	1004 100.0	482 100.0	12 100.0	33 100.0	27 100.0	10 100.0

TABLE 7.8 METHODS USED TO OBTAIN FIRST FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME) (RACE ANALYSIS)

METHOD USED TO GET FIRST JOB AFTER HIGH SCHOOL	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK
ALREADY HAD JOB WITH EMPLOYER	771 27.2	308 21.3	176 33.9	39 18.2	20 21.3	6 20.0	110 45.5	20 28.2	328 23.0	147 21.6	4 22.2	3 7.9	8 22.2	6 42.9
THRU VOCATIONAL TEACHER	259 9.1	121 8.4	51 9.8	13 6.1	10 10.6	2 6.7	20 8.3	11 15.5	132 9.3	50 7.3	5 27.8	6 15.8		1 7.1
THRU SCHOOL COUNSELOR	62 2.2	76 5.3	12 2.3	16 7.5			2 .8		38 2.7	42 6.2	1 5.6	2 5.3	3 8.3	
THRU SCHOOL PLACEMENT OFFICE..	236 8.3	132 9.1	26 5.0	12 5.6	8 8.5	2 6.7	5 2.1	4 5.6	156 10.9	76 11.2	3 16.7	3 7.9	3 8.3	
THRU OTHER SCHOOL PERSONNEL ..	36 1.3	40 2.8	6 1.2	6 2.8	4 4.3		3 1.2	2 2.8	19 1.3	23 3.4		1 2.6	2 5.6	
PRIVATE EMPLOYMENT AGENCY	131 4.6	63 4.4	12 2.3	5 2.3	2 2.1		11 4.5	4 5.6	96 6.7	29 4.3				1 7.1
STATE EMPLOYMENT AGENCY	64 2.3	94 6.5	7 1.3	16 7.5	1 1.1	2 6.7	1 .4	4 5.6	41 2.9	52 7.6	1 5.6		3 8.3	3 21.4
THRU PARENT OR RELATIVE	167 5.9	87 6.0	36 6.9	18 8.4	8 8.5	3 10.0	12 5.0	4 5.6	62 4.3	34 5.0		1 2.6	1 2.8	1 7.1
THRU FAMILY/PERSONAL FRIEND ..	369 13.0	170 11.7	73 14.1	30 14.0	15 16.0	3 10.0	17 7.0	8 11.3	170 11.9	76 11.2		4 10.5	7 19.4	1 7.1
ON MY OWN, WITHOUT ANY HELP ..	737 26.0	356 24.6	120 23.1	59 27.6	26 27.7	12 40.0	61 25.2	14 19.7	385 27.0	152 22.3	4 22.2	18 47.4	9 25.0	1 7.1
TOTAL	2832 100.0	1447 100.0	519 100.0	214 100.0	94 100.0	30 100.0	242 100.0	71 100.0	1427 100.0	681 100.0	18 100.0	38 100.0	36 100.0	14 100.0

SUMMARY

1. For all programs combined, the black-white differences are not substantial. Consult table for details.
2. Within programs, there are significant black-white differences for same answer categories.

TABLE 7.10 RELATION OF PRESENT JOB TO VOCATIONAL COURSE (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME) (RACE ANALYSIS)

HOW RELATED IS YOUR PRESENT JOB TO YOUR HIGH SCHOOL OCCUPATIONAL COURSE	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK
SAME OCCUPATION STUDIED	709 25.3	248 17.6	145 28.2	25 12.0	15 16.5	4 12.9	47 19.4	9 12.5	386 27.2	125 18.9	10 55.6	18 50.0	6 17.6	2 14.3
HIGHLY RELATED	676 24.1	286 20.3	74 14.4	23 11.1	13 14.3	5 16.1	50 20.7	11 15.3	449 31.6	162 24.4	4 22.2	4 11.1	2 5.9	1 7.1
SLIGHTLY RELATED	610 21.8	330 23.5	93 18.1	34 16.3	23 25.3	6 19.4	64 26.4	20 27.8	351 24.7	195 29.4	2 11.1	5 13.9	4 11.8	6 42.9
COMPLETELY UNRELATED	809 28.9	542 38.5	203 39.4	126 60.6	40 44.0	16 51.6	81 33.5	32 44.4	234 16.5	181 27.3	2 11.1	9 25.0	22 64.7	5 35.7
TOTAL	2804 100.0	1406 100.0	515 100.0	208 100.0	91 100.0	31 100.0	242 100.0	72 100.0	1420 100.0	663 100.0	18 100.0	36 100.0	34 100.0	14 100.0
MEAN RELATEDNESS *	2.46	2.17	2.31	1.75	2.03	1.90	2.26	1.96	2.70	2.35	3.22	2.86	1.76	2.00

*The rating scale was as follows: 4 - same occupation studied, 3 - highly related (to occupation studied), 2 - slightly related (to occupation studied)
1 - completely unrelated (to occupation studied).

SUMMARY

1. Overall, a lower percentage of blacks than whites (38% vs. 50%) find employment in the field for which trained.
2. This finding is more severe in some program fields than others. Consult table.

TABLE 7.11 ADEQUACY OF TRAINING FOR PRESENT JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME IN FIELD OF STUDY) (RACE ANALYSIS)

HOW WELL DID YOUR HIGH SCHOOL OCCUPATIONAL COURSE PREPARE YOU FOR YOUR PRESENT JOB (GRADUATES EMPLOYED IN FIELD)	TOTAL GRADS WHITE	TOTAL GRADS BLACK	TRADE/INDUST WHITE	TRADE/INDUST BLACK	TECHNICAL WHITE	TECHNICAL BLACK	DISTRIB EDUC WHITE	DISTRIB EDUC BLACK	BUSINESS WHITE	BUSINESS BLACK	HEALTH WHITE	HEALTH BLACK	HOME ECON WHITE	HOME ECON BLACK
EXCELLENT PREPARATION	545	199	101	14	12	1	26	8	337	112	7	9	5	2
	40.8	39.0	47.2	31.1	44.4	11.1	28.6	40.0	41.9	41.0	53.8	42.9	62.5	66.7
GOOD PREPARATION	736	280	97	21	12	7	63	11	453	149	6	12	1	1
	55.1	54.9	45.3	46.7	44.4	77.8	69.2	55.0	56.3	54.6	46.2	57.1	12.5	33.3
FAIR PREPARATION	45	28	14	9	3	1	2	1	14	12			2	
	3.4	5.5	6.5	20.0	11.1	11.1	2.2	5.0	1.7	4.4			25.0	
POOR PREPARATION	10	3	2	1					1					
	.7	.6	.9	2.2					.1					
TOTAL	1336	510	214	45	27	9	91	20	805	273	13	21	8	3
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SUMMARY

1. There are too few cases in three of the program areas to warrant a generalization about race differences within programs. Overall, there is no significant black-white difference in the data. Both blacks and whites employed in their field of study have a high regard for their vocational education.

TABLE 7.12 REASONS FOR PRESENT JOB NOT IN FIELD OF STUDY (VOCATIONALS PRESENTLY EMPLOYED OUT OF FIELD OF STUDY) (RACE ANALYSIS)

WHAT WAS THE MAIN REASON FOR NOT GETTING PRESENT JOB IN OCCUPATION STUDIED (GRADS NOT EMPLOYED IN FIELD)	TOTAL GRADS WHITE	TOTAL GRADS BLACK	TRADE/INDUST WHITE	TRADE/INDUST BLACK	TECHNICAL WHITE	TECHNICAL BLACK	DISTRIB EDUC WHITE	DISTRIB EDUC BLACK	BUSINESS WHITE	BUSINESS BLACK	HEALTH WHITE	HEALTH BLACK	HOME ECON WHITE	HOME ECON BLACK
TRIED, BUT COULD NOT FIND JOB	214 18.1	157 21.7	40 15.7	25 17.2	10 18.9	4 19.0	14 11.7	7 15.2	92 19.8	74 25.1		2 25.0	7 28.0	
NOT ACCEPTED AS APPRENTICE ...	34 2.9	41 5.7	12 4.7	13 9.0	1 1.9	2 9.5	4 3.3	1 2.2	4 .9	10 3.4				
NOT SUFFICIENTLY QUALIFIED ...	155 13.1	109 15.1	35 13.8	24 16.6	13 24.5	3 14.3	8 6.7	4 8.7	65 14.0	45 15.3		2 25.0	1 4.0	
DID NOT LIKE THAT TYPE WORK ..	140 11.9	75 10.4	33 13.0	17 11.7	5 9.4	1 4.8	21 17.5	4 8.7	62 13.3	26 8.8		1 12.5	1 4.0	2 25.0
EARNINGS TOO LOW IN THAT JOB..	36 3.1	26 3.6	7 2.8	4 2.8			10 8.3	5 10.9	8 1.7	7 2.4	1 33.3		1 4.0	1 12.5
NO ADVANCEMENT OPPORTUNITY ...	31 2.6	17 2.3	9 3.5	3 2.1	1 1.9	2 9.5	4 3.3	4 8.7	5 1.1	7 2.4			1 4.0	
BETTER JOB CAME ALONG FIRST ..	140 11.9	73 10.1	26 10.2	10 6.9	7 13.2	1 4.8	20 16.7	8 17.4	52 11.2	29 9.8			1 4.0	1 12.5
NEVER PLANNED TO WORK IN FIELD	133 11.3	54 7.5	29 11.4	8 5.5	1 1.9		13 10.8	6 13.0	48 10.3	19 6.4	2 66.7	2 25.0	6 24.0	
REASON OTHER THAN ABOVE	297 25.2	172 23.8	63 24.8	41 28.3	15 28.3	8 38.1	26 21.7	7 15.2	129 27.7	78 26.4		1 12.5	7 28.0	4 50.0
TOTAL	1180 100.0	724 100.0	254 100.0	145 100.0	53 100.0	21 100.0	120 100.0	46 100.0	465 100.0	295 100.0	3 100.0	8 100.0	25 100.0	8 100.0

SUMMARY

1. The black-white differences are not impressive, although there are some suggestive differences.

TABLE 7.13 HOURLY EARNINGS ON PRESENT FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME) (RACE ANALYSIS)

	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK
WHAT IS YOUR PRESENT HOURLY PAY RATE (BEFORE DEDUCTIONS)														
1.00 - 1.49	76 2.8	48 3.5	22 4.5	9 4.3		1 3.2	5 2.2	2 2.9	35 2.6	19 2.9			3 8.8	1 7.7
1.50 - 1.99	792 29.4	332 23.9	117 23.9	45 21.6	16 17.6	8 25.8	106 46.1	26 37.7	432 32.1	167 25.5	3 20.0	5 14.3	20 58.8	6 46.2
2.00 - 2.49	1124 41.7	530 38.1	145 29.7	64 30.8	36 39.6	14 45.2	85 37.0	21 30.4	660 49.0	285 43.6	4 26.7	6 17.1	9 26.5	4 30.8
2.50 - 2.99	419 15.6	313 22.5	111 22.7	47 22.6	19 20.9	6 19.4	25 10.9	16 23.2	165 12.2	139 21.3	4 26.7	14 40.0		2 15.4
3.00 - 3.49	131 4.9	111 8.0	38 7.8	28 13.5	11 12.1	2 6.5	5 2.2	3 4.3	24 1.8	32 4.9	4 26.7	6 17.1	1 2.9	
3.50 - 3.99	87 3.2	28 2.0	36 7.4	10 4.8	5 5.5		3 1.3	1 1.4	16 1.2	4 .6		2 5.7		
4.00 AND OVER	65 2.4	28 2.0	20 4.1	5 2.4	4 4.4		1 .4		15 1.1	8 1.2		2 5.7	1 2.9	
TOTAL	2694 100.0	1390 100.0	489 100.0	208 100.0	91 100.0	31 100.0	230 100.0	69 100.0	1347 100.0	654 100.0	15 100.0	35 100.0	34 100.0	13 100.0
MEAN EARNINGS	2.30	2.36	2.47	2.47	2.56	2.25	2.10	2.21	2.18	2.28	2.55	2.76	1.96	2.01

SUMMARY

1. Overall, the mean earnings of blacks and whites are not impressively different.
2. Within program areas, there are some significant differences. Consult table.

TABLE 7.14 RELATION OF PRESENT STUDIES TO HIGH SCHOOL COURSE (VOCATIONALS PRESENTLY ATTENDING COLLEGE OR SCHOOL) (RACE ANALYSIS)

ARE YOUR PRESENT STUDIES OR PLANNED COLLEGE MAJOR RELATED TO YOUR HS OCCUPATIONAL COURSE	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK
YES	1067	981	251	165	91	38	79	40	336	456	38	53	24	23
	59.1	56.9	61.1	53.1	81.3	76.0	41.4	43.5	57.2	65.7	80.9	79.1	58.5	42.6
NO	739	742	160	146	21	12	112	52	251	238	9	14	17	31
	40.9	43.1	38.9	46.9	18.7	24.0	58.6	56.5	42.8	34.3	19.1	20.9	41.5	57.4
TOTAL	1806	1723	411	311	112	50	191	92	587	694	47	67	41	54
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SUMMARY

1. Overall, there are no significant black-white differences in relation of present studies to high school vocational course.
2. The differences are significant in some program areas. Consult table.

TABLE 7.15 DISCUSSION OF POST-HIGH SCHOOL EDUCATION WITH COUNSELOR (VOCATIONALS PRESENTLY ATTENDING COLLEGE OR SCHOOL) (RACE ANALYSIS)

	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK
DID YOU DISCUSS YOUR COLLEGE OR SCHOOL PLANS WITH YOUR HIGH-SCHOOL COUNSELOR														
YES	1051 57.7	1076 62.7	257 62.2	183 58.3	78 69.6	34 69.4	111 56.6	52 56.5	298 50.9	432 62.9	35 77.8	50 74.6	19 43.2	36 63.2
NO	769 42.3	640 37.3	156 37.8	131 41.7	34 30.4	15 30.6	85 43.4	40 43.5	288 49.1	255 37.1	10 22.2	17 25.4	25 56.8	21 36.8
TOTAL	1820 100.0	1716 100.0	413 100.0	314 100.0	112 100.0	49 100.0	196 100.0	92 100.0	586 100.0	687 100.0	45 100.0	67 100.0	44 100.0	57 100.0

SUMMARY

1. For the combined program data, there is no impressive black-white difference in reported discussion of educational plans with high school counselors.
2. Some program differences appear to be significant, e.g. home economics and business education. Both show a greater percentage of blacks reporting counselor contacts.

TABLE 7.16.1 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (ALL VOCATIONAL GRADUATES) (RACE ANALYSIS)

WHERE ARE YOU NOW LOCATED	TOTAL GRADS WHITE	TOTAL GRADS BLACK	TRADE/INDUST WHITE	TRADE/INDUST BLACK	TECHNICAL WHITE	TECHNICAL BLACK	DISTRIB EDUC WHITE	DISTRIB EDUC BLACK	BUSINESS WHITE	BUSINESS BLACK	HEALTH WHITE	HEALTH BLACK	HOME ECON WHITE	HOME ECON BLACK
SAME CITY AS HIGH SCHOOL	4893 88.9	3897 90.4	989 88.7	612 86.7	207 85.5	86 86.0	464 85.6	202 89.0	2145 92.2	1763 94.0	50 75.8	131 92.3	84 83.2	92 85.2
SAME STATE, DIFFERENT CITY ...	400 7.3	231 5.4	86 7.7	44 6.2	24 9.9	9 9.0	43 7.9	14 6.2	121 5.[illegible]	71 3.8	12 18.2	4 2.8	16 15.8	11 10.2
DIFFERENT STATE	211 3.8	182 4.2	40 3.6	50 7.1	11 4.5	5 5.0	35 6.5	11 4.8	60 2.6	41 2.2	4 6.1	7 4.9	1 1.0	5 4.6
TOTAL	5504 100.0	4310 100.0	1115 100.0	706 100.0	242 100.0	100 100.0	542 100.0	227 100.0	2326 100.0	1875 100.0	66 100.0	142 100.0	101 100.0	108 100.0

SUMMARY

1. Both blacks and whites are alike with respect to mobility out of the city in which they attended high school.

TABLE 7.10.2 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME) (RACE ANALYSIS)

WHERE ARE YOU NOW LOCATED (GRADS PRESENTLY EMPLOYED)	TOTAL GRADS WHITE	TOTAL GRADS BLACK	TRADE/INDUST WHITE	TRADE/INDUST BLACK	TECHNICAL WHITE	TECHNICAL BLACK	DISTRIB EDUC WHITE	DISTRIB EDUC BLACK	BUSINESS WHITE	BUSINESS BLACK	HEALTH WHITE	HEALTH BLACK	HOME ECON WHITE	HOME ECON BLACK
SAME CITY AS HIGH SCHOOL	2561	1270	456	186	77	25	223	63	1311	589	15	38	36	12
	95.7	95.9	94.6	96.4	89.5	83.3	96.5	95.5	96.9	96.9	93.8	97.4	97.3	100.0
SAME STATE, DIFFERENT CITY ...	86	36	24	5	8	4	5	2	31	10	1	1	1	
	3.2	2.7	5.0	2.6	9.3	13.3	2.2	3.0	2.3	1.6	6.3	2.6	2.7	
DIFFERENT STATE	28	18	2	2	1	1	3	1	11	9				
	1.0	1.4	.4	1.0	1.2	3.3	1.3	1.5	.8	1.5				
TOTAL	2675	1324	482	193	86	30	231	66	1353	608	16	39	37	12
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SUMMARY

1. No significant differences. No movement out of the city.

TABLE 7.16.3 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (VOCATIONALS PRESENTLY ATTENDING COLLEGE OR SCHOOL) (RACE ANALYSIS)

	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK
WHERE ARE YOU NOW LOCATED														
(ATTENDING COLLEGE/SCHOOL)														
SAME CITY AS HIGH SCHOOL	1487	1482	355	247	96	44	144	76	501	635	33	60	31	46
	79.4	83.4	83.1	77.9	84.2	83.0	72.0	78.4	82.5	88.7	70.2	87.0	67.4	76.7
SAME STATE, DIFFERENT CITY ...	273	173	49	36	13	5	34	11	78	56	11	3	14	10
	14.6	9.7	11.5	11.4	11.4	9.4	17.0	11.3	12.9	7.8	23.4	4.3	30.4	16.7
DIFFERENT STATE	113	121	23	34	5	4	22	10	28	25	3	6	1	4
	6.0	6.8	5.4	10.7	4.4	7.5	11.0	10.3	4.6	3.5	6.4	8.7	2.2	6.7
TOTAL	1873	1776	427	317	114	53	200	97	607	716	47	69	46	60
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

CHAPTER 7 (PART 2). ANALYSIS OF SEX OF GRADUATE

THE ISSUE

The purpose for comparing the follow-up survey data in terms of male and female graduates was to identify those variables for which the substantial sex differences warrant more in-depth study and/or program corrective actions to improve performance in line with the basic objectives derived from the manpower conversion equation (Chapter 1). Each table presented herein has been discussed under its equivalent topic section in Chapter 3. At the bottom of each table, there appears a brief summary of the conclusions drawn from the table. For more details, consult the discussion in Chapter 3.

SUMMARY OF FINDINGS

A summary of the findings in terms of sex differences is listed below.

TABLE	TITLE	DIFFERENCE
7.1	Order of Choice for Vocational Course Taken	Mixed
7.2	Sources of Influence on Vocational Course Selection	Mixed
7.3	Occupational Information at Time of Course Choice	Negligible
7.4	Plans to Work in Occupation After High School	Negligible
7.5.1	Present Status of Class of '70 Graduates	Substantial
7.5.2	Present Status of Class of '70 (Multiple Response)	Substantial
7.6	Stability of Employment with First Employer	Substantial
7.7.1	Time Required to Find First Job	Significant
7.7.2	Steadiness of Job-Hunting Prior First Job	Negligible
7.8	Methods Used to Obtain First Full-Time Job	Negligible
7.10	Relation of Present Job to Vocational Course	Significant
7.11	Adequacy of Vocational Training for Present Job	Negligible
7.12	Reasons for Present Job Not Being in Field of Study	None
7.13	Hourly Earnings on Present Full-Time Job	Significant
7.14	Relation of Present Studies to Vocational Course	Negligible
7.15	Discussion of Post-High School Education with Counselor	Negligible
7.16.1-3	Present Residence of Class of '70 Graduates	Negligible

TABLE 7.1 ORDER OF CHOICE OF VOCATIONAL COURSE TAKEN (ALL VOCATIONAL GRADUATES) (SEX ANALYSIS)

DID YOU GET TO TAKE THE COURSE OF YOUR 1ST, 2ND OR 3RD CHOICE	TOTAL GRADS MALE	TOTAL GRADS FEMALE	TRADE/INDUST MALE	TRADE/INDUST FEMALE	TECHNICAL MALE	TECHNICAL FEMALE	DISTRIB EDUC MALE	DISTRIB EDUC FEMALE	BUSINESS MALE	BUSINESS FEMALE	HEALTH MALE	HEALTH FEMALE	HOME ECON MALE	HOME ECON FEMALE
FIRST CHOICE	4250 76.3	6246 79.2	1575 81.0	434 78.8	300 88.0	14 63.6	253 68.4	567 69.7	560 72.7	4160 82.9	11 68.8	164 83.2	13 54.2	123 67.2
SECOND CHOICE	571 10.2	850 10.8	165 8.5	64 11.6	26 7.6	2 9.1	28 7.6	103 12.7	96 12.5	476 9.5	2 12.5	12 6.1	3 12.5	26 14.2
THIRD CHOICE	174 3.1	205 2.6	50 2.6	17 3.1	8 2.3		13 3.5	32 3.9	25 3.2	101 2.0		6 3.0	2 8.3	9 4.9
NO CHOICE AVAILABLE	578 10.4	585 7.4	155 8.0	36 6.5	7 2.1	6 27.3	76 20.5	111 13.7	89 11.6	284 5.7	3 18.7	15 7.6	6 25.0	25 13.7
TOTAL	5573 100.0	7886 100.0	1945 100.0	551 100.0	341 100.0	22 100.0	370 100.0	813 100.0	770 100.0	5021 100.0	16 100.0	197 100.0	24 100.0	183 100.0

SUMMARY

1. Overall, there is no significant difference between males and females in terms of getting the vocational course of their preferred (first) choice.

2. Individual program fields, i.e. Technical, Business Education, Health Occupations and Gainful Home Economics do reveal significant sex differences in terms of students getting the vocational course of their first choice.

TABLE 7.2 SOURCES OF INFLUENCE ON VOCATIONAL COURSE SELECTION (ALL VOCATIONAL GRADUATES) (SEX ANALYSIS)

ASIDE FROM YOURSELF, WHO INFLUENCED YOUR VOCATIONAL COURSE CHOICE THE MOST	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
GUIDANCE COUNSELOR	838	1171	240	59	50	8	62	125	164	738	5	26	11	33
	15.6	15.1	12.9	10.8	15.2	42.1	17.1	15.5	21.6	14.9	35.7	14.1	45.8	18.5
VOCATIONAL TEACHER	859	903	291	45	38	2	55	132	66	508		13	3	35
	16.0	11.6	15.7	8.2	11.6	10.5	15.2	16.3	8.7	10.2		7.0	12.5	19.7
OTHER SCHOOL PERSONNEL	317	318	95	21	33	2	25	34	46	196		10		5
	5.9	4.1	5.1	3.8	10.1	10.5	6.9	4.2	6.1	4.0		5.4		2.8
PARENTS	1172	2329	448	160	78	4	66	167	183	1648	3	68	1	34
	21.8	30.0	24.2	29.3	23.8	21.1	18.2	20.6	24.1	33.2	21.4	36.8	4.2	19.1
BROTHER / SISTER	309	555	98	35	13		18	50	52	378	1	4		9
	5.8	7.1	5.3	6.4	4.0		5.0	6.2	6.9	7.6	7.1	2.2		5.1
RELATIVE / FAMILY FRIEND	480	699	184	69	38	1	26	55	66	435	1	19		17
	8.9	9.0	9.9	12.6	11.6	5.3	7.2	6.8	8.7	8.8	7.1	10.3		9.6
FRIENDS OF YOUR AGE GROUP	765	1136	281	100	47	1	53	165	103	670	1	26	6	26
	14.3	14.6	15.2	18.3	14.3	5.3	14.6	20.4	13.6	13.5	7.1	14.1	25.0	14.6
SOMEONE OTHER THAN ABOVE	624	663	217	57	31	1	57	81	79	384	3	19	3	19
	11.6	8.5	11.7	10.4	9.5	5.3	15.7	10.0	10.4	7.7	21.4	10.3	12.5	10.7
TOTAL	5364	7774	1854	546	328	19	362	809	759	4957	14	185	24	178
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SUMMARY

1. Overall, there is no impressive difference between males and females in terms of sources of influence on vocational course selection. Exception: Parents.
2. Some programs do show substantial sex differences on this variable, i.e. Gainful Home Economics, Health Occupations, Business Education.

TABLE 7.3 INFORMATION ABOUT OCCUPATION AT TIME OF COURSE CHOICE (ALL VOCATIONAL GRADUATES) (SEX ANALYSIS)

HOW WELL INFORMED WERE YOU ABOUT THE OCCUPATION WHEN YOU MADE YOUR COURSE CHOICE	TOTAL GRADS MALE	TOTAL GRADS FEMALE	TRADE/INDUST MALE	TRADE/INDUST FEMALE	TECHNICAL MALE	TECHNICAL FEMALE	DISTRIB EDUC MALE	DISTRIB EDUC FEMALE	BUSINESS MALE	BUSINESS FEMALE	HEALTH MALE	HEALTH FEMALE	HOME ECON MALE	HOME ECON FEMALE
EXCELLENT INFORMATION	932	1354	350	96	48	3	56	108	127	891	6	42	2	31
	16.5	16.9	17.7	17.1	13.8	15.0	15.0	13.3	16.1	17.4	37.5	21.2	8.3	17.3
GOOD INFORMATION	2476	4058	829	251	154	9	164	385	359	2698	5	102	12	82
	43.8	50.7	42.0	44.6	44.3	45.0	44.0	47.4	45.6	52.8	31.3	51.5	50.0	45.8
FAIR INFORMATION	1667	2142	594	165	105	6	109	243	233	1299	4	41	5	51
	29.5	26.7	30.1	29.3	30.2	30.0	29.2	29.9	29.6	25.4	25.0	20.7	20.8	28.5
POOR INFORMATION	584	454	202	51	41	2	44	76	69	223	1	13	5	15
	10.3	5.7	10.2	9.1	11.8	10.0	11.8	9.4	8.8	4.4	6.3	6.6	20.8	8.4
TOTAL	5659	8008	1975	563	348	20	373	812	788	5111	16	198	24	179
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SUMMARY

1. For the combined programs, the data indicates that females are slightly better informed than males about the occupation selected for study.

2. In general, there are no impressive sex differences in terms of students reported precourse information about the occupation selected for study. A large percentage of both sexes report their information was poor or only fair.

TABLE 7.4 PLANS TO WORK IN FIELD AT TIME OF COURSE CHOICE (ALL VOCATIONAL GRADUATES) (SEX ANALYSIS)

DID YOU PLAN TO WORK IN THAT OCCUPATION WHEN YOU SELECTED YOUR HIGH SCHOOL COURSE	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
YES, DEFINITELY	2059 36.8	3224 40.7	786 40.3	240 42.9	147 42.9	9 47.4	100 27.3	212 26.4	247 31.6	2197 43.4	4 25.0	127 65.5	8 34.8	46 26.0
YES, BUT NOT DEFINITE	2608 46.6	3691 46.6	884 45.3	238 42.6	173 50.4	6 31.6	168 45.9	420 52.4	384 49.2	2362 46.7	9 56.3	53 27.3	8 34.8	89 50.3
NO, BUT NOT DEFINITE	682 12.2	718 9.1	208 10.7	57 10.2	19 5.5	2 10.5	65 17.8	111 13.8	114 14.6	377 7.4	2 12.5	7 3.6	6 26.1	25 14.1
NO, DEFINITELY	252 4.5	292 3.7	73 3.7	24 4.3	4 1.2	2 10.5	33 9.0	59 7.4	36 4.6	126 2.5	1 6.3	7 3.6	1 4.3	17 9.6
TOTAL	5601 100.0	7925 100.0	1951 100.0	559 100.0	343 100.0	19 100.0	366 100.0	802 100.0	781 100.0	5062 100.0	16 100.0	194 100.0	23 100.0	177 100.0

SUMMARY

1. For combined programs, the data reveals no impressive male-female differences in plans to work in the occupation at the time of vocational course selection.
2. Within programs, the differences are less impressive than the basic similarity of the data pattern. We conclude that the sex differences are negligible.

TABLE 7.5.1 PRESENT STATUS OF CLASS OF 70 GRADUATES (ALL VOCATIONAL GRADUATES) (SEX ANALYSIS)

	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
WHAT IS YOUR PRESENT STATUS														
EMPLOYED FT, NO COLLEGE/SCHOOL	2140 32.9	3546 42.8	692 31.0	237 40.6	124 32.6	5 22.7	131 27.3	326 37.8	277 30.6	2513 48.0	3 15.8	57 28.2	6 21.4	47 24.2
EMPLOYED FT, COLLEGE FULL-TIME	58 .9	25 .3	20 .9	1 .2	4 1.1		7 1.5	4 .5	13 1.4	12 .2		2 1.0	1 3.6	1 .5
EMPLOYED FT, COLLEGE PART-TIME	140 2.2	159 1.9	39 1.7	6 1.0	6 1.6		19 4.0	14 1.6	23 2.5	112 2.1			1 3.6	3 1.5
EMPLOYED FT, SCHOOL FULL-TIME	25 .4	9 .1	11 .5	2 .3	2 .5				2 .2	3 .1				2 1.0
EMPLOYED FT, SCHOOL PART-TIME	127 2.0	134 1.6	48 2.2	8 1.4	4 1.1		4 .8	13 1.5	16 1.8	91 1.7	1 5.3			4 2.1
EMPLOYED FT, TOTAL	2490 38.2	3873 46.8	810 36.3	254 43.5	140 36.8	5 22.7	161 33.5	357 41.4	331 36.6	2731 52.2	4 21.1	59 29.2	8 28.6	57 29.4
EMPLOYED PT, NO COLLEGE/SCHOOL	218 3.3	328 4.0	80 3.6	37 6.3	15 3.9	1 4.5	18 3.7	56 6.5	29 3.2	164 3.1		8 4.0	1 3.6	8 4.1
EMPLOYED PT, COLLEGE FULL-TIME	509 7.8	499 6.0	172 7.7	37 6.3	34 8.9	1 4.5	59 12.3	75 8.7	94 10.4	290 5.5		20 9.9		7 3.6
EMPLOYED PT, COLLEGE PART-TIME	78 1.2	107 1.3	26 1.2	7 1.2	3 .8		8 1.7	21 2.4	10 1.1	68 1.3		2 1.0	2 7.1	3 1.5
EMPLOYED PT, SCHOOL FULL-TIME	70 1.1	46 .6	27 1.2	2 .3	13 3.4	1 4.5	1 .2	2 .2	8 .9	30 .6		2 1.0		2 1.0
EMPLOYED PT, SCHOOL PART-TIME	36 .6	44 .5	15 .7	5 .9	3 .8		3 .6	7 .8	2 .2	22 .4		1 .5	1 3.6	2 1.0
EMPLOYED PT, TOTAL	911 14.0	1024 12.4	320 14.3	88 15.1	68 17.9	3 13.6	89 18.5	161 18.7	143 15.8	574 11.0		33 16.3	4 14.3	22 11.3

SUMMARY

1. There are substantial male-female differences in all program areas. A larger percentage of females are employed full-time and a larger percentage are also unemployed. Consult table for details.

TABLE 7.5.1 PRESENT STATUS OF CLASS OF 70 GRADUATES (ALL VOCATIONAL GRADUATES) (SEX ANALYSIS)

PRESENT STATUS (CONTINUED)	TOTAL GRADS MALE	TOTAL GRADS FEMALE	TRADE/INDUST MALE	TRADE/INDUST FEMALE	TECHNICAL MALE	TECHNICAL FEMALE	DISTRIB EDUC MALE	DISTRIB EDUC FEMALE	BUSINESS MALE	BUSINESS FEMALE	HEALTH MALE	HEALTH FEMALE	HOME ECON MALE	HOME ECON FEMALE
UNEMPLOYED,L,NO COLLEGE/SCHOOL	593 9.1	1164 14.1	198 8.9	82 14.0	21 5.5	3 13.6	41 8.5	109 12.6	77 8.5	688 13.1	1 5.3	20 9.9	2 7.1	38 19.6
UNEMPLOYED,L,COLLEGE FULL-TIME	217 3.3	254 3.1	86 3.9	17 2.9	10 2.6	1 4.5	14 2.9	33 3.8	33 3.6	136 2.6		10 5.0		13 6.7
UNEMPLOYED,L,COLLEGE PART-TIME	44 .7	63 .8	15 .7	4 .7			3 .6	8 .9	4 .4	32 .6				3 1.5
UNEMPLOYED,L,SCHOOL FULL-TIME	48 .7	35 .4	17 .8	3 .5	9 2.4		2 .4	2 .2	1 .1	23 .4			2 7.1	
UNEMPLOYED,L,SCHOOL PART-TIME	22 .3	57 .7	8 .4	7 1.2			3 .6	6 .7	3 .3	29 .6		1 .5		2 1.0
UNEMPLOYED,L,TOTAL	924 14.2	1573 19.0	324 14.5	113 19.3	40 10.5	4 18.2	63 13.1	158 18.3	118 13.0	908 17.3	1 5.3	31 15.3	4 14.3	56 28.9
UNEMPLOYD,NL,NO COLLEGE/SCHOOL	54 .8	211 2.5	16 .7	25 4.3	4 1.1		3 .6	25 2.9	8 .9	119 2.3		4 2.0		3 1.5
UNEMPLOYD,NL,COLLEGE FULL-TIME	1106 17.0	1099 13.3	404 18.1	63 10.8	74 19.5	8 36.4	65 13.5	101 11.7	190 21.0	609 11.6	9 47.4	51 25.2	4 14.3	42 21.6
UNEMPLOYD,NL,COLLEGE PART-TIME	36 .6	54 .7	11 .5	3 .5			5 1.0	6 .7	2 .2	36 .7		3 1.5	1 3.6	
UNEMPLOYD,NL,SCHOOL FULL-TIME	130 2.0	218 2.6	61 2.7	17 2.9	9 2.4	1 4.5	5 1.0	25 2.9	16 1.8	126 2.4	1 5.3	16 7.9	3 10.7	7 3.6
UNEMPLOYD,NL,SCHOOL PART-TIME	25 .4	54 .7	9 .4	5 .9	2 .5		1 .2	5 .6	2 .2	36 .7		1 .5	1 3.6	2 1.0
UNEMPLOYD,NL,TOTAL	1351 20.7	1636 19.8	501 22.4	113 19.3	89 23.4	9 40.9	79 16.5	162 18.8	218 24.1	926 17.7	10 52.6	75 37.1	9 32.1	54 27.8
MILITARY SERVICE	792 12.2	35 .4	263 11.8	3 .5	38 10.0		84 17.5	6 .7	90 9.9	18 .3	4 21.1	1 .5	2 7.1	1 .5
OTHER THAN ABOVE	43 .7	139 1.7	14 .6	13 2.2	5 1.3	1 4.5	4 .8	19 2.2	5 .6	78 1.5		3 1.5	1 3.6	4 2.1
TOTAL	6511	8280	2232	584	380	22	480	863	905	5235	19	202	28	194

TABLE 7.5.2 PRESENT STATUS OF CLASS OF 70 GRADUATES (ALL VOCATIONAL GRADUATES) (SEX ANALYSIS)

WHAT IS YOUR PRESENT STATUS (MULTIPLE RESPONSES)	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
EMPLOYED FULL-TIME	2490 38.2	3873 46.8	810 36.3	254 43.5	140 36.8	5 22.7	161 33.5	357 41.4	331 36.6	2731 52.2	4 21.1	59 29.2	8 28.6	57 29.4
EMPLOYED PART-TIME	911 14.0	1024 12.4	320 14.3	88 15.1	68 17.9	3 13.6	89 18.5	161 18.7	143 15.8	574 11.0		33 16.3	4 14.3	22 11.3
UNEMPLOYED, LOOKING FOR WORK..	924 14.2	1573 19.0	324 14.5	113 19.3	40 10.5	4 18.2	63 13.1	158 18.3	118 13.0	908 17.3	1 5.3	31 15.3	4 14.3	56 28.9
UNEMPLOYED, NOT LOOKING	266 4.1	551 6.7	105 4.7	49 8.4	19 5.0	1 4.5	17 3.5	58 6.7	46 5.1	304 5.8		27 13.4	2 7.1	15 7.7
COLLEGE FULL-TIME	1890 29.0	1877 22.7	682 30.6	118 20.2	122 32.1	10 45.5	145 30.2	213 24.7	330 36.5	1047 20.0	9 47.4	83 41.1	5 17.9	63 32.5
COLLEGE PART-TIME	298 4.6	383 4.6	91 4.1	20 3.4	9 2.4		35 7.3	49 5.7	39 4.3	248 4.7		5 2.5	4 14.3	9 4.6
SCHOOL FULL-TIME	273 4.2	308 3.7	116 5.2	24 4.1	33 8.7	2 9.1	8 1.7	29 3.4	27 3.0	182 3.5	1 5.3	18 8.9	5 17.9	11 5.7
SCHOOL PART-TIME	210 3.2	289 3.5	80 3.6	25 4.3	9 2.4		11 2.3	31 3.6	23 2.5	178 3.4	1 5.3	3 1.5	2 7.1	10 5.2
MILITARY SERVICE	792 12.2	35 .4	263 11.8	3 .5	38 10.0		84 17.5	6 .7	90 9.9	18 .3	4 21.1	1 .5	2 7.1	1 .5
OTHER THAN ABOVE	43 .7	139 1.7	14 .6	13 2.2	5 1.3	1 4.5	4 .8	19 2.2	5 .6	78 1.5		3 1.5	1 3.6	4 2.1
TOTAL	6511	8280	2232	584	380	22	480	863	905	5235	19	202	28	194

SUMMARY

1. There are significant male-female differences in all program areas. Percentage-wise, more females are employed full-time, unemployed and looking and fewer are attending college.

TABLE 7.6 STABILITY WITH FIRST JOB EMPLOYER (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME) (SEX ANALYSIS)

IS YOUR PRESENT JOB YOUR FIRST JOB SINCE HIGH SCHOOL	TOTAL GRADS MALE	TOTAL GRADS FEMALE	TRADE/INDUST MALE	TRADE/INDUST FEMALE	TECHNICAL MALE	TECHNICAL FEMALE	DISTRIB EDUC MALE	DISTRIB EDUC FEMALE	BUSINESS MALE	BUSINESS FEMALE	HEALTH MALE	HEALTH FEMALE	HOME ECON MALE	HOME ECON FEMALE
YES	1371 65.7	2632 75.5	452 66.5	159 68.2	78 64.5	5 100.0	90 69.8	221 69.9	175 66.0	1913 77.2	2 100.0	45 81.8	2 40.0	31 68.9
NO	716 34.3	856 24.5	228 33.5	74 31.8	43 35.5		39 30.2	95 30.1	90 34.0	565 22.8		10 18.2	3 60.0	14 31.1
TOTAL	2087 100.0	3488 100.0	680 100.0	233 100.0	121 100.0	5 100.0	129 100.0	316 100.0	265 100.0	2478 100.0	2 100.0	55 100.0	5 100.0	45 100.0

SUMMARY

1. For the combined program, a higher percentage of females than males were still with their first employer at the time of the survey.
2. The above generalization holds for all program fields except Distributive Education.
3. A large percentage of both sexes had for unknown reasons, left their first employer within six months after high school.

TABLE 7.7.1 TIME REQUIRED TO OBTAIN FIRST FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME) (SEX ANALYSIS)

HOW MANY WEEKS AFTER HIGH SCHOOL DID IT TAKE TO GET YOUR FIRST JOB	TOTAL GRADS MALE	TOTAL GRADS FEMALE	TRADE/INDUST MALE	TRADE/INDUST FEMALE	TECHNICAL MALE	TECHNICAL FEMALE	DISTRIB EDUC MALE	DISTRIB EDUC FEMALE	BUSINESS MALE	BUSINESS FEMALE	HEALTH MALE	HEALTH FEMALE	HOME ECON MALE	HOME ECON FEMALE
IMMEDIATELY	762 39.6	1175 36.8	266 42.0	78 35.6	38 35.5	1 20.0	66 56.9	142 49.6	74 30.6	619 36.2		18 32.7	4 57.1	11 26.8
1 - 2 WEEKS	420 21.8	747 23.4	137 21.6	49 22.4	22 20.6	1	18 15.5	38 13.3	55 22.7	567 25.1		15 27.3	1 14.3	8 19.5
3 - 4 WEEKS	238 12.4	373 11.7	82 13.0	28 12.8	13 12.1	1 20.0	8 6.9	35 12.2	26 10.7	254 11.2		8 14.5		3 7.3
5 - 6 WEEKS	108 5.6	183 5.7	31 4.9	18 8.2	6 5.6	1 20.0	5 4.3	17 5.9	21 8.7	117 5.2		6 10.9		1 2.4
7 - 8 WEEKS	119 6.2	176 5.5	36 5.7	9 4.1	7 6.5		6 5.2	11 3.8	26 10.7	125 5.5		2 3.6	1 14.3	6 14.6
9 - 10 WEEKS	129 6.7	237 7.4	31 4.9	20 9.1	10 9.3		6 5.2	20 7.0	24 9.9	162 7.2		4 7.3	1 14.3	7 17.1
11 - 12 WEEKS	66 3.4	145 4.5	23 3.6	7 3.2	5 4.7	1 20.0	4 3.4	11 3.8	10 4.1	106 4.7		1 1.8		4 9.8
13 - 14 WEEKS	30 1.6	48 1.5	8 1.3	4 1.8	1 .9		1 .9	3 1.0	1 .4	32 1.4				
15 - 16 WEEKS	21 1.1	48 1.5	7 1.1	1 .4	1 .7		1 .9	3 1.0	3 1.2	39 1.7				
MORE THAN 4 MONTHS	31 1.6	56 1.8	12 1.9	5 2.3	4 3.7		1 .9	6 2.1	2 .8	39 1.7		1 1.8		1 2.4
TOTAL	1924 100.0	3188 100.0	633 100.0	219 100.0	107 100.0	5 100.0	116 100.6	286 100.0	242 100.0	2260 100.0		55 100.0	7 100.0	41 100.0
MEAN WEEKS	3.22	3.46	3.03	3.49	3.88	4.40	2.38	3.02	3.80	3.45		3.00	2.64	4.95

SUMMARY

1. Females require significantly longer time to obtain their first full-time job.

2. The generalization applies to all program areas.

TABLE 7.7.2 ACTIVITY IN LOOKING FOR A JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME) (SEX ANALYSIS)

	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
WERE YOU LOOKING FOR A JOB DURING MOST OF THAT TIME	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
YES	597	1047	191	69	36	1	24	78	71	750		11		15
	44.2	43.4	44.5	45.1	41.9	33.3	30.0	40.0	42.3	43.4		24.4		42.9
NO	755	1365	238	84	50	2	56	117	97	977	1	34	2	20
	55.8	56.6	55.5	54.9	58.1	66.7	70.0	60.0	57.7	56.6	100.0	75.[illegible]	100.0	57.1
TOTAL	1352	2412	429	153	86	3	80	195	168	1727	1	45	2	35
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 7.8 METHODS USED TO OBTAIN FIRST FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME) (SEX ANALYSIS)

METHOD USED TO GET FIRST JOB AFTER HIGH SCHOOL	TOTAL GRADS MALE	TOTAL GRADS FEMALE	TRADE/INDUST MALE	TRADE/INDUST FEMALE	TECHNICAL MALE	TECHNICAL FEMALE	DISTRIB EDUC MALE	DISTRIB EDUC FEMALE	BUSINESS MALE	BUSINESS FEMALE	HEALTH MALE	HEALTH FEMALE	HOME ECON MALE	HOME ECON FEMALE
ALREADY HAD JOB WITH EMPLOYER	592 28.3	898 25.8	208 30.5	66 28.3	26 21.5	1 20.0	52 40.6	121 38.2	67 24.9	617 25.0		7 12.7	4 80.0	10 22.2
THRU VOCATIONAL TEACHER	170 8.1	277 8.0	58 8.5	12 5.2	12 9.9		14 10.9	21 6.6	7 2.6	202 8.2		11 20.0		1 2.2
THRU SCHOOL COUNSELOR	77 3.7	117 3.4	31 4.6	5 2.1			2 1.6	1 .3	14 5.2	95 3.8		3 5.5		3 6.7
THRU SCHOOL PLACEMENT OFFICE..	130 6.2	316 9.1	50 7.3	10 4.3	10 8.3		4 3.1	14 4.4	23 8.6	248 10.0	1 50.0	6 10.9		3 6.7
THRU OTHER SCHOOL PERSONNEL ..	30 1.4	65 1.9	7 1.0	6 2.6	3 2.5	1 20.0	1 .8	4 1.3	4 1.5	46 1.9		1 1.8		2 4.4
PRIVATE EMPLOYMENT AGENCY	33 1.6	223 6.4	11 1.6	10 4.3	3 2.5			24 7.6	8 3.0	158 6.4				1 2.2
STATE EMPLOYMENT AGENCY	75 3.6	160 4.6	24 3.5	5 2.1	3 2.5		1 .8	12 3.8	18 6.7	115 4.7		1 1.8		6 13.3
THRU PARENT OR RELATIVE	179 8.5	141 4.1	61 9.0	12 5.2	11 9.1		13 10.2	13 4.1	18 6.7	98 4.0		1 1.8		2 4.4
THRU FAMILY/PERSONAL FRIEND ..	293 14.0	402 11.6	92 13.5	34 14.6	18 14.9		11 8.6	30 9.5	35 13.0	284 11.5		4 7.3		8 17.8
ON MY OWN, WITHOUT ANY HELP ..	515 24.6	879 25.3	139 20.4	73 31.3	35 28.9	3 60.0	30 23.4	77 24.3	75 27.9	608 24.6	1 50.0	21 38.2	1 20.0	9 20.0
TOTAL	2094 100.0	3478 100.0	681 100.0	233 100.0	121 100.0	5 100.0	128 100.0	317 100.0	269 100.0	2471 100.0	2 100.0	55 100.0	5 100.0	45 100.0

SUMMARY

1. No impressive sex differences in methods used to get first job.

TABLE 7.10 RELATION OF PRESENT JOB TO VOCATIONAL COURSE (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME) (SEX ANALYSIS)

HOW RELATED IS YOUR PRESENT JOB TO YOUR HIGH SCHOOL OCCUPATIONAL COURSE	TOTAL GRADS MALE	TOTAL GRADS FEMALE	TRADE/INDUST MALE	TRADE/INDUST FEMALE	TECHNICAL MALE	TECHNICAL FEMALE	DISTRIB EDUC MALE	DISTRIB EDUC FEMALE	BUSINESS MALE	BUSINESS FEMALE	HEALTH MALE	HEALTH FEMALE	HOME ECON MALE	HOME ECON FEMALE
SAME OCCUPATION STUDIED	358 17.7	850 24.7	135 20.2	80 34.5	19 16.0		17 13.6	52 16.4	18 7.2	619 25.3	1 50.0	28 52.8	1 20.0	7 16.3
HIGHLY RELATED	312 15.4	908 26.4	86 12.9	27 11.6	18 15.1		22 17.6	64 20.2	40 16.1	721 29.4		8 15.1		3 7.0
SLIGHTLY RELATED	419 20.7	883 25.6	136 20.3	29 12.5	26 21.8	3 60.0	34 27.2	97 30.6	79 31.7	674 27.5		7 13.2	3 60.0	7 16.3
COMPLETELY UNRELATED	939 46.3	804 23.3	312 46.6	96 41.4	56 47.1	2 40.0	52 41.6	104 32.8	112 45.0	437 17.8	1 50.0	10 18.9	1 20.0	26 60.5
TOTAL	2028 100.0	3445 100.0	669 100.0	232 100.0	119 100.0	5 100.0	125 100.0	317 100.0	249 100.0	2451 100.0	2 100.0	53 100.0	5 100.0	43 100.0
MEAN RELATEDNESS *	2.04	2.52	2.07	2.39	2.00	1.60	2.03	2.20	1.86	2.62	2.50	3.02	2.20	1.79

*The rating scale was as follows: 4 - same occupation studied, 3 - highly related (to occupation studied), 2 - slightly related (to occupation studied),
1 - completely unrelated (to occupation studied).

SUMMARY

1. Overall, a higher percentage of females than males (51% vs. 33%) are employed in the field for which trained.
2. The sex difference is more pronounced in some program areas than others.

TABLE 7.11 ADEQUACY OF TRAINING FOR PRESENT JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME IN FIELD OF STUDY) (SEX ANALYSIS)

HOW WELL DID YOUR HIGH SCHOOL OCCUPATIONAL COURSE PREPARE YOU FOR YOUR PRESENT JOB (GRADUATES EMPLOYED IN FIELD)	TOTAL GRADS MALE	TOTAL GRADS FEMALE	TRADE/INDUST MALE	TRADE/INDUST FEMALE	TECHNICAL MALE	TECHNICAL FEMALE	DISTRIB EDUC MALE	DISTRIB EDUC FEMALE	BUSINESS MALE	BUSINESS FEMALE	HEALTH MALE	HEALTH FEMALE	HOME ECON MALE	HOME ECON FEMALE
EXCELLENT PREPARATION	236 36.4	693 41.5	87 40.5	52 50.0	13 36.1		13 35.1	31 27.9	22 41.5	533 41.4		16 47.1		7 70.0
GOOD PREPARATION	352 54.3	934 55.4	105 48.8	41 39.4	19 52.8		22 59.5	76 68.5	26 49.1	723 56.2	1 100.0	18 52.9		2 20.0
FAIR PREPARATION	52 8.0	44 2.6	21 9.8	9 8.7	4 11.1		2 5.4	4 3.6	5 9.4	28 2.2			1 100.0	1 10.0
POOR PREPARATION	8 1.2	8 .5	2 .9	2 1.9						2 .2				
TOTAL	648 100.0	1685 100.0	215 100.0	104 100.0	36 100.0		37 100.0	111 100.0	53 100.0	1286 100.0	1 100.0	34 100.0	1 100.0	10 100.0

SUMMARY

1. For combined program data, females have a slightly higher opinion of their vocational training than do males.
2. The differences are of no practical significance.

TABLE 7.12. REASONS FOR PRESENT JOB NOT IN FIELD OF STUDY (VOCATIONALS PRESENTLY EMPLOYED OUT OF FIELD OF STUDY) (SEX ANALYSIS)

	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
WHAT WAS THE MAIN REASON FOR NOT GETTING PRESENT JOB IN OCCUPATION STUDIED (GRADS NOT EMPLOYED IN FIELD)														
TRIED, BUT COULD NOT FIND JOB	228 19.6	258 19.1	71 18.5	12 10.7	15 20.8		7 9.1	26 15.8	29 17.5	176 20.3		2 20.0	1 33.3	6 20.0
NOT ACCEPTED AS APPRENTICE ...	77 6.6	22 1.6	31 8.1	1 .9	4 5.6		3 3.9	3 1.8	4 2.4	14 1.6				
NOT SUFFICIENTLY QUALIFIED ...	154 13.2	189 14.0	51 13.3	16 14.3	16 22.2		8 10.4	14 8.5	23 13.9	138 15.8		2 20.0		1 3.3
DID NOT LIKE THAT TYPE WORK ..	108 9.3	178 13.1	40 10.4	22 19.6	6 8.3		11 14.3	22 13.3	14 8.4	109 12.6		1 10.0		3 10.0
EARNINGS TOO LOW IN THAT JOB..	43 3.7	43 3.2	8 2.1	3 2.7			4 5.2	15 9.1	7 4.2	17 2.0		1 10.0		2 6.7
NO ADVANCEMENT OPPORTUNITY ...	39 3.3	24 1.8	12 3.1	3 2.7	2 2.8	1 25.0	7 9.1	6 3.6	4 2.4	12 1.4				1 3.3
BETTER JOB CAME ALONG FIRST ..	124 10.6	159 11.7	30 7.8	13 11.6	8 11.1		9 11.7	22 13.3	19 11.4	100 11.5				2 6.7
NEVER PLANNED TO WORK IN FIELD	114 9.8	135 10.0	41 10.7	13 11.6	1 1.4		5 6.5	23 13.9	23 13.9	71 8.2	1 100.0	3 30.0		6 20.0
REASON OTHER THAN ABOVE	279 23.9	346 25.6	99 25.8	29 25.9	20 27.8	3 75.0	23 29.9	34 20.6	43 25.9	239 27.5		1 10.0	2 66.7	9 30.0
TOTAL	1166 100.0	1354 100.0	383 100.0	112 100.0	72 100.0	4 100.0	77 100.0	165 100.0	166 100.0	868 100.0	1 100.0	10 100.0	3 100.0	30 100.0

SUMMARY

1. No impressive sex differences for the combined program data.

TABLE 7.13 HOURLY EARNINGS ON PRESENT FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME) (SEX ANALYSIS)

	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
WHAT IS YOUR PRESENT HOURLY PAY RATE (BEFORE DEDUCTIONS)	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
1.00 - 1.49	36 1.8	103 3.1	11 1.7	23 11.0		1 20.0		9 2.9	7 2.8	54 2.3				4 9.3
1.50 - 1.99	326 16.1	1024 30.9	102 15.4	86 41.0	23 19.5	1 20.0	31 25.6	145 46.9	43 17.3	667 28.3		8 16.3	2 50.0	24 55.8
2.00 - 2.49	665 32.8	1558 47.0	199 30.0	70 33.3	49 41.5	2 40.0	37 30.6	118 38.2	85 34.1	1205 51.6	1 50.0	9 18.4	1 25.0	12 27.9
2.50 - 2.99	517 25.5	485 14.6	181 27.3	23 11.0	24 20.3	1 20.0	30 24.8	29 9.4	68 27.3	348 14.7	1 50.0	18 36.7	1 25.0	1 2.3
3.00 - 3.49	264 13.0	80 2.4	81 12.2	6 2.9	13 11.0		12 9.9	4 1.3	28 11.2	45 1.9		10 20.4		1 2.3
3.50 - 3.99	133 6.6	27 .8	57 8.6	1 .5	5 4.2		8 6.6	2 .6	11 4.4	18 .8		2 4.1		
4.00 AND OVER	84 4.1	40 1.2	32 4.8	1 .5	4 3.4		3 2.5	2 .6	7 2.8	24 1.0		2 4.1		1 2.3
TOTAL	2025 100.0	3317 100.0	663 100.0	210 100.0	118 100.0	5 100.0	121 100.0	309 100.0	249 100.0	2361 100.0	2 100.0	49 100.0	4 100.0	43 100.0
MEAN EARNINGS	2.60	2.20	2.65	2.03	2.50	2.05	2.50	2.07	2.51	2.21	2.50	2.70	2.12	1.96

SUMMARY

1. Unmatched in terms of occupations in which employed, males earn more than females in all program areas except health occupations.

TABLE 7.14 RELATION OF PRESENT STUDIES TO HIGH SCHOOL COURSE (VOCATIONALS PRESENTLY ATTENDING COLLEGE OR SCHOOL) (SEX ANALYSIS)

ARE YOUR PRESENT STUDIES OR PLANNED COLLEGE MAJOR RELATED TO YOUR HS OCCUPATIONAL COURSE	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
YES	1482	1524	539	73	132	6	102	137	253	947	8	85	5	42
	59.0	56.9	59.0	42.7	80.0	60.0	55.7	45.2	63.7	60.9	80.0	79.4	33.3	51.9
NO	1028	1155	374	98	33	4	81	166	144	607	2	22	10	39
	41.0	43.1	41.0	57.3	20.0	40.0	44.3	54.8	36.3	39.1	20.0	20.6	66.7	48.1
TOTAL	2510	2679	913	171	165	10	183	303	397	1554	10	107	15	81
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SUMMARY

1. For combined program data, there is no impressive sex difference.
2. Within some programs, e.g. trade and industrial, technical, and distributive education, males are more likely to continue their college studies in the field related to their high school occupational course.

TABLE 7.15 DISCUSSION OF POST-HIGH SCHOOL EDUCATION WITH COUNSELOR (VOCATIONALS PRESENTLY ATTENDING COLLEGE OR SCHOOL)(SEX ANALYSIS)

DID YOU DISCUSS YOUR COLLEGE OR SCHOOL PLANS WITH YOUR HIGH SCHOOL COUNSELOR	TOTAL GRADS MALE	TOTAL GRADS FEMALE	TRADE/INDUST MALE	TRADE/INDUST FEMALE	TECHNICAL MALE	TECHNICAL FEMALE	DISTRIB EDUC MALE	DISTRIB EDUC FEMALE	BUSINESS MALE	BUSINESS FEMALE	HEALTH MALE	HEALTH FEMALE	HOME ECON MALE	HOME ECON FEMALE
YES	1585	1568	558	98	115	8	113	169	249	885	7	82	11	44
	62.8	58.3	60.7	55.7	70.6	72.7	59.5	55.8	62.6	56.9	70.0	78.1	73.3	50.6
NO	937	1123	361	78	48	3	77	134	149	671	3	23	4	43
	37.2	41.7	39.3	44.3	29.4	27.3	40.5	44.2	37.4	43.1	30.0	21.9	26.7	49.4
TOTAL	2522	2691	919	176	163	11	190	303	398	1556	10	105	15	87
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SUMMARY

1. There are no significant sex differences on this variable, when one excludes the programs where there are too few cases to warrant interpretation.

TABLE 7.16.1 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (ALL VOCATIONAL GRADUATES) (SEX ANALYSIS)

	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
WHERE ARE YOU NOW LOCATED	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
SAME CITY AS HIGH SCHOOL	4750	7079	1636	492	287	21	325	732	684	4507	11	175	19	160
	85.0	90.5	84.5	90.3	85.2	91.3	82.5	89.2	85.7	91.5	64.7	89.3	79.2	85.6
SAME STATE, DIFFERENT CITY ...	482	521	192	38	34	1	34	49	59	308	1	15	2	24
	8.6	6.7	9.9	7.0	10.1	4.3	8.6	6.0	7.4	6.3	5.9	7.7	8.3	12.8
DIFFERENT STATE	355	220	108	15	16	1	35	40	55	111	5	6	3	3
	6.4	2.8	5.6	2.8	4.7	4.3	8.9	4.9	6.9	2.3	29.4	3.1	12.5	1.6
TOTAL	5587	7820	1936	545	337	23	394	821	798	4926	17	196	24	187
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SUMMARY

1. Males demonstrate slightly greater movement out of the city in which they went to high school than do females. The difference is too slight to have any implication for curriculum planning.

TABLE 7.16.2 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME) (SEX ANALYSIS)

	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
WHERE ARE YOU NOW LOCATED (GRADS PRESENTLY EMPLOYED)														
SAME CITY AS HIGH SCHOOL	1825	3107	590	201	99	5	116	290	230	2199	3	51	5	43
	93.1	95.5	93.4	93.9	87.6	100.0	94.3	96.3	91.6	95.5	100.0	96.2	100.0	97.7
SAME STATE, DIFFERENT CITY ...	98	112	36	11	12		5	5	11	81		2		1
	5.0	3.4	5.7	5.1	10.6		4.1	1.7	4.4	3.5		3.8		2.3
DIFFERENT STATE	37	33	6	2	2		2	6	10	22				
	1.9	1.0	.9	.9	1.8		1.6	2.0	4.0	1.0				
TOTAL	1960	3252	632	214	113	5	123	301	251	2302	3	53	5	44
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SUMMARY

1. No impressive sex differences.

TABLE 7.16.3 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (VOCATIONALS PRESENTLY ATTENDING COLLEGE OR SCHOOL) (SEX ANALYSIS)

	TOTAL GRADS		TRADE/INDUST		TECHNICAL		DISTRIB EDUC		BUSINESS		HEALTH		HOME ECON	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
WHERE ARE YOU NOW LOCATED														
(ATTENDING COLLEGE/SCHOOL)														
SAME CITY AS HIGH SCHOOL	2046 78.8	2298 82.5	737 77.8	153 84.1	141 83.9	10 83.3	147 75.4	253 80.1	335 82.1	1351 84.1	6 54.5	90 83.3	11 73.3	68 73.9
SAME STATE, DIFFERENT CITY ...	348 13.4	351 12.6	141 14.9	19 10.4	19 11.3	1 8.3	25 12.8	40 12.7	46 11.3	194 12.1	1 9.1	13 12.0	2 13.3	21 22.8
DIFFERENT STATE	201 7.7	138 5.0	69 7.3	10 5.5	8 4.8	1 8.3	23 11.8	23 7.3	27 6.6	62 3.9	4 36.4	5 4.6	2 13.3	3 3.3
TOTAL	2595 100.0	2787 100.0	947 100.0	182 100.0	168 100.0	12 100.0	195 100.0	316 100.0	408 100.0	1607 100.0	11 100.0	108 100.0	15 100.0	92 100.0

SUMMARY

1. No impressive sex difference.

CHAPTER 8. ANALYSIS BY TYPE OF GRADUATE

THE ISSUE

Project Metro (II) also included a follow-up survey of 55,180 non-vocational (academic and general program) Class of '70 graduates. Vocational educators as well as vocational education critics have a compulsion to compare like data obtained from vocational and non-vocational graduates. We fell in line with tradition.

The purpose of comparing like vocational and non-vocational survey data is to identify those outcome variables for which there are significant and/or substantial differences that relate to the issue of whether vocational enrollment should be increased at the expense of the non-vocational enrollment of non-college-bound students.

Each table presented herein has been discussed under its equivalent topic section in Chapter 3. A brief summary of the conclusions drawn from each table appears at the bottom of the table. For more details, consult the discussion in Chapter 3.

SUMMARY OF FINDINGS

A summary of the findings in terms of vocational, academic and general program graduates differences is listed below:

TABLE	TITLE	DIFFERENCE
8.2	Sources of Influence on Selection of High School Major	Substantial
8.5.1	Present Status of Class of '70 Graduates	Substantial
8.5.2	Present Status of Class of '70 (Multiple Response)	Substantial
8.6	Stability of Employment with First Employer	Negligible
8.7.1	Time Required to Find First Job	Significant
8.7.2	Steadiness of Job-Hunting Prior First Job	Negligible
8.8	Methods Used to Obtain First Full-Time Job	Substantial
8.13	Hourly Earnings on Present Full-Time Job	Significant
8.16.1-3	Present Residence of Class of '70 Graduates	Varies

TABLE 8.2 SOURCES OF INFLUENCE ON HIGH SCHOOL COURSE SELECTION (ALL CLASS OF 70 GRADUATES)

ASIDE FROM YOURSELF, WHO INFLUENCED THE SELECTION OF YOUR H.S. MAJOR THE MOST	TOTAL ALL GRADUATES ACAD	GEN	VOC	CLASS 1 CITIES ACAD	GEN	VOC	CLASS 2 CITIES ACAD	GEN	VOC	CLASS 3 CITIES ACAD	GEN	VOC
GUIDANCE COUNSELOR	777 14.2	3701 18.0	2132 15.3	119 6.4	960 15.6	484 11.5	591 18.8	1632 19.9	1124 17.8	67 13.6	1109 17.7	524 15.5
VOCATIONAL TEACHER	64 1.2	553 2.7	1858 13.4	15 .8	112 1.8	666 15.8	45 1.4	272 3.3	762 12.1	4 .8	169 2.7	430 12.7
ACADEMIC/GENERAL TEACHER	399 7.3	1896 9.2	----	142 7.7	574 9.3	----	211 6.7	776 9.5	----	46 9.3	546 8.7	----
OTHER SCHOOL PERSONNEL	113 2.1	544 2.6	681 4.9	35 1.9	170 2.8	245 5.8	72 2.3	242 3.0	308 4.9	6 1.2	132 2.1	128 3.8
PARENTS	2837 51.7	8171 39.6	3698 26.6	1143 62.0	2780 45.0	1143 27.1	1457 46.3	2954 36.1	1665 26.4	237 48.0	2437 39.0	890 26.3
BROTHER / SISTER	255 4.6	1037 5.0	931 6.7	82 4.4	324 5.2	289 6.8	148 4.7	396 4.8	421 6.7	25 5.1	317 5.1	221 6.5
RELATIVES/FAMILY FRIENDS	243 4.4	982 4.8	1244 8.9	70 3.8	289 4.7	384 9.1	151 4.8	380 4.6	558 8.8	22 4.5	313 5.0	302 8.9
PERSONAL FRIEND YOUR AGE	269 4.9	1434 7.0	1998 14.4	73 4.0	374 6.1	623 14.8	160 5.1	583 7.1	906 14.4	36 7.3	477 7.6	469 13.9
SOMEONE OTHER THAN ABOVE	532 9.7	2291 11.1	1371 9.9	166 9.0	590 9.6	388 9.2	315 10.0	951 11.6	566 9.0	51 10.3	750 12.0	417 12.3
TOTAL	5489 100.0	20609 100.0	13913 100.0	1845 100.0	6173 100.0	4222 100.0	3150 100.0	8186 100.0	6310 100.0	494 100.0	6250 100.0	3381 100.0

SUMMARY

1. The pattern of influence sources is substantially different for academic, general and vocational graduates. Consult table for details.

TABLE 8.5.1 PRESENT STATUS OF CLASS OF 70 GRADUATES (ALL CLASS OF 70 GRADUATES)

	TOTAL ALL GRADUATES			CLASS 1 CITIES			CLASS 2 CITIES			CLASS 3 CITIES		
	ACAD	GEN	VOC	ACAD	GEN	VOC	ACAD	GEN	VOC	ACAD	GEN	VOC
WHAT IS YOUR PRESENT STATUS												
EMPLOYED FT, NO COLLEGE/SCHOOL	592 10.3	3694 16.6	5981 38.3	173 9.0	894 13.6	1754 37.5	396 12.0	1512 17.1	2800 39.3	23 4.5	1288 18.9	1427 37.3
EMPLOYED FT, COLLEGE FULL-TIME	25 .4	139 .6	86 .6	7 .4	36 .5	23 .5	16 .5	65 .7	34 .5	2 .4	38 .6	29 .8
EMPLOYED FT, COLLEGE PART-TIME	45 .8	247 1.1	322 2.1	12 .6	82 1.2	93 2.0	32 1.0	114 1.3	153 2.1	1 .2	51 .8	76 2.0
EMPLOYED FT, SCHOOL FULL-TIME	8 .1	38 .2	34 .2	3 .2	9 .1	12 .3	5 .2	12 .1	17 .2		17 .3	5 .1
EMPLOYED FT, SCHOOL PART-TIME	24 .4	108 .5	273 1.7	12 .6	31 .5	84 1.8	12 .4	40 .5	133 1.9		37 .5	56 1.5
EMPLOYED FT, TOTAL	694 12.1	4226 19.0	6696 42.8	207 10.8	1052 16.0	1966 42.1	461 13.9	1743 19.7	3137 44.0	26 5.1	1421 21.1	1593 41.7
EMPLOYED PT, NO COLLEGE/SCHOOL	94 1.6	623 2.8	582 3.7	20 1.0	129 2.0	158 3.4	71 2.1	281 3.2	289 4.1	3 .6	213 3.1	135 3.5
EMPLOYED PT, COLLEGE FULL-TIME	683 11.9	2584 11.6	1072 6.9	188 9.8	843 12.8	312 6.7	440 13.3	868 9.8	403 5.7	55 10.8	873 12.8	352 9.2
EMPLOYED PT, COLLEGE PART-TIME	54 .9	438 2.0	199 1.3	12 .6	97 1.5	57 1.2	33 1.0	192 2.2	88 1.2	9 1.8	149 2.2	54 1.4
EMPLOYED PT, SCHOOL FULL-TIME	37 .6	161 .7	125 .8	8 .4	29 .4	30 .6	25 .8	56 .6	63 .9	4 .8	76 1.1	32 .8
EMPLOYED PT, SCHOOL PART-TIME	8 .1	105 .5	82 .5	2 .1	18 .3	19 .4	6 .2	53 .6	51 .7		34 .5	12 .3
EMPLOYED PT, TOTAL	876 15.3	3911 17.6	2060 13.2	230 12.0	1116 16.9	576 12.3	575 17.4	1450 16.4	899 12.6	71 14.0	1345 19.8	585 15.3

TABLE 8.5.1 PRESENT STATUS OF CLASS OF 70 GRADUATES (ALL CLASS OF 70 GRADUATES)

	TOTAL ALL GRADUATES			CLASS 1 CITIES			CLASS 2 CITIES			CLASS 3 CITIES		
PRESENT STATUS (CONTINUED)	ACAD	GEN	VOC	ACAD	GEN	VOC	ACAD	GEN	VOC	ACAD	GEN	VOC
UNEMPLOYED,L,NO COLLEGE/SCHOOL	151	1397	1850	29	284	484	106	735	952	16	378	414
	2.6	6.3	11.8	1.5	4.3	10.4	3.2	8.3	13.3	3.2	5.6	10.8
UNEMPLOYED,L,COLLEGE FULL-TIME	213	1000	494	45	290	161	144	459	221	24	251	112
	3.7	4.5	3.2	2.3	4.4	3.4	4.4	5.2	3.1	4.7	3.7	2.9
UNEMPLOYED,L,COLLEGE PART-TIME	11	137	121	4	35	30	6	81	64	1	21	27
	.2	.6	.8	.2	.5	.6	.2	.9	.9	.2	.3	.7
UNEMPLOYED,L,SCHOOL FULL-TIME	15	79	86	6	11	21	9	38	48		30	17
	.3	.4	.6	.3	.2	.4	.3	.4	.7		.4	.4
UNEMPLOYED,L,SCHOOL PART-TIME	10	74	84	4	18	20	6	40	43		16	21
	.2	.3	.5	.2	.3	.4	.2	.5	.6		.2	.5
UNEMPLOYED,L,TOTAL	400	2687	2635	88	638	716	271	1353	1328	41	696	591
	7.0	12.1	16.9	4.6	9.7	15.3	8.2	15.3	18.6	8.1	10.2	15.5
UNEMPLOYD,NL,NO COLLEGE/SCHOOL	34	268	278	4	66	66	27	110	137	3	92	75
	.6	1.2	1.8	.2	1.0	1.4	.8	1.2	1.9	.6	1.4	2.0
UNEMPLOYD,NL,COLLEGE FULL-TIME	3360	9450	2381	1261	3342	933	1755	3434	830	344	2674	618
	58.6	42.5	15.2	65.8	50.7	20.0	53.0	38.8	11.6	67.9	39.3	16.2
UNEMPLOYD,NL,COLLEGE PART-TIME	31	176	96	11	43	28	17	82	44	3	51	24
	.5	.8	.6	.6	.7	.6	.5	.9	.6	.6	.8	.6
UNEMPLOYD,NL,SCHOOL FULL-TIME	161	471	360	77	109	121	75	213	170	9	149	69
	2.8	2.1	2.3	4.0	1.7	2.6	2.3	2.4	2.4	1.8	2.2	1.8
UNEMPLOYD,NL,SCHOOL PART-TIME	14	106	81	7	30	14	6	43	45	1	33	22
	.2	.5	.5	.4	.5	.3	.2	.5	.6	.2	.5	.6
UNEMPLOYD,NL,TOTAL	3600	10471	3156	1360	3590	1162	1880	3882	1226	360	2999	808
	62.8	47.1	20.5	71.0	54.5	24.9	56.8	43.9	17.2	71.0	44.1	21.1
MILITARY SERVICE	114	678	845	20	127	207	88	320	444	6	231	194
	2.0	3.0	5.4	1.0	1.9	4.4	2.7	3.6	6.2	1.2	3.4	5.1
OTHER THAN ABOVE	48	260	196	10	63	46	35	102	99	3	95	51
	.8	1.2	1.3	.5	1.0	1.0	1.1	1.2	1.4	.6	1.4	1.3
TOTAL	5732	22233	15628	1915	6586	4673	3310	8850	7133	507	6797	3822

TABLE **8.5.2** PRESENT STATUS OF CLASS OF 70 GRADUATES (ALL CLASS OF 70 GRADUATES)

WHAT IS YOUR PRESENT STATUS (MULTIPLE RESPONSES)	TOTAL ALL GRADUATES ACAD	 GEN	 VOC	CLASS 1 CITIES ACAD	 GEN	 VOC	CLASS 2 CITIES ACAD	 GEN	 VOC	CLASS 3 CITIES ACAD	 GEN	 VOC
EMPLOYED FULL-TIME	694 12.1	4226 19.0	6696 42.8	207 10.8	1052 16.0	1966 42.1	461 13.9	1743 19.7	3137 44.0	26 5.1	1431 21.1	1593 41.7
EMPLOYED PART-TIME	876 15.3	3911 17.6	2060 13.2	230 12.0	1116 16.9	576 12.3	575 17.4	1450 16.4	899 12.6	71 14.0	1345 19.8	585 15.3
UNEMPLOYED, LOOKING FOR WORK..	400 7.0	2687 12.1	2635 16.9	88 4.6	638 9.7	716 15.3	271 8.2	1353 15.3	1328 18.6	41 8.1	696 10.2	591 15.5
UNEMPLOYED, NOT LOOKING	839 14.6	2821 12.7	868 5.6	275 14.4	963 14.6	292 6.2	473 14.3	1035 11.7	356 5.0	91 17.9	823 12.1	220 5.8
COLLEGE FULL-TIME	4281 74.7	13173 59.2	4033 25.8	1501 78.4	4511 68.5	1429 30.6	2355 71.1	4826 54.5	1493 20.9	425 83.8	3826 56.4	1111 29.1
COLLEGE PART-TIME	141 2.5	998 4.5	738 4.7	39 2.0	257 3.9	208 4.5	88 2.7	469 5.3	349 4.9	14 2.8	272 4.0	181 4.7
SCHOOL FULL-TIME	221 3.9	749 3.4	605 3.9	94 4.9	158 2.4	184 3.9	114 3.4	319 3.6	298 4.2	13 2.6	272 4.0	123 3.2
SCHOOL PART-TIME	56 1.0	393 1.8	520 3.3	25 1.3	97 1.5	137 2.9	30 .9	176 2.0	272 3.8	1 .2	120 1.8	111 2.9
MILITARY SERVICE	114 2.0	678 3.0	845 5.4	20 1.0	127 1.9	207 4.4	88 2.7	320 3.6	444 6.2	6 1.2	231 3.4	194 5.1
OTHER THAN ABOVE	48 .8	260 1.2	196 1.3	10 .5	63 1.0	46 1.0	35 1.1	102 1.2	99 1.4	3 .6	95 1.4	51 1.3
TOTAL	5732	22233	15628	1915	6586	4673	3310	8850	7133	507	6797	3822

TABLE 8.6 STABILITY WITH FIRST JOB EMPLOYER (GRADUATES PRESENTLY EMPLOYED FULL-TIME)

IS YOUR PRESENT JOB YOUR FIRST JOB SINCE HIGH SCHOOL	TOTAL ALL GRADUATES			CLASS 1 CITIES			CLASS 2 CITIES			CLASS 3 CITIES		
	ACAD	GEN	VOC	ACAD	GEN	VOC	ACAD	GEN	VOC	ACAD	GEN	VOC
YES	421	2452	4218	124	600	1246	286	989	1939	11	863	1033
	72.6	67.8	71.9	73.4	68.8	72.7	73.1	66.9	70.5	55.0	68.2	73.9
NO	159	1164	1646	45	272	469	105	490	812	9	402	365
	27.4	32.2	28.1	26.6	31.2	27.3	26.9	33.1	29.5	45.0	31.8	26.1
TOTAL	580	3616	5864	169	872	1715	391	1479	2751	20	1265	1398
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SUMMARY

1. The majority of all three types of graduates were still with their first full-time employer at the time of the survey. The percentage differences are not impressive.
2. A large percentage of all three types of graduates had, for unknown reasons, left their first employer within six months after high school.

TABLE 8.7.1 TIME REQUIRED TO OBTAIN FIRST JOB AFTER HIGH SCHOOL (GRADUATES PRESENTLY EMPLOYED FULL-TIME)

HOW MANY WEEKS AFTER HIGH SCHOOL DID IT TAKE TO GET YOUR FIRST JOB	TOTAL ALL GRADUATES ACAD	TOTAL ALL GRADUATES GEN	TOTAL ALL GRADUATES VOC	CLASS 1 CITIES ACAD	CLASS 1 CITIES GEN	CLASS 1 CITIES VOC	CLASS 2 CITIES ACAD	CLASS 2 CITIES GEN	CLASS 2 CITIES VOC	CLASS 3 CITIES ACAD	CLASS 3 CITIES GEN	CLASS 3 CITIES VOC
IMMEDIATELY	84	748	2040	21	180	617	57	255	909	6	313	514
	17.6	25.3	38.0	15.6	24.9	39.8	17.6	20.8	36.0	31.6	30.9	39.7
1 - 2 WEEKS	115	695	1233	32	172	360	79	300	575	4	223	298
	24.1	23.5	23.0	23.7	23.8	23.2	24.4	24.5	22.8	21.0	22.0	23.0
3 - 4 WEEKS	89	456	642	20	128	189	63	188	325	6	140	128
	18.7	15.4	12.0	14.8	17.7	12.2	19.5	15.3	12.0	31.6	13.8	9.9
5 - 6 WEEKS	35	224	295	7	48	79	27	106	142	1	70	74
	7.3	7.6	5.5	5.2	6.6	5.1	8.4	8.7	5.6	5.3	6.9	5.7
7 - 8 WEEKS	41	209	308	18	43	81	22	91	155	1	75	72
	8.6	7.0	5.7	13.3	5.9	5.2	6.8	7.4	6.1	5.3	7.4	5.6
9 - 10 WEEKS	50	261	385	21	76	113	29	110	184		75	88
	10.5	8.8	7.2	15.6	10.5	7.3	9.0	9.0	7.3		7.4	6.8
11 - 12 WEEKS	33	189	217	8	36	63	24	90	97	1	63	57
	6.9	6.4	4.0	5.9	5.0	4.1	7.4	7.3	3.8	5.3	6.2	4.4
13 - 14 WEEKS	11	43	85	4	15	21	7	16	41		12	23
	2.3	1.4	1.6	3.0	2.1	1.4	2.2	1.3	1.6		1.2	1.7
15 - 16 WEEKS	11	45	71	3	7	6	8	25	47		13	18
	2.3	1.5	1.3	2.2	1.0	.4	2.5	2.1	1.9		1.3	1.4
MORE THAN 4 MONTHS	8	91	92	1	18	20	7	44	48		29	24
	1.7	3.1	1.7	0.7	2.5	1.3	2.2	3.6	1.9		2.9	1.8
TOTAL	477	2961	5368	135	723	1549	323	1225	2523	19	1013	1296
MEAN WEEKS	4.81	4.37	3.36	5.19	4.22	3.07	4.78	4.75	3.53	2.71	4.02	3.35

SUMMARY

1. Vocational program graduates required significantly less time to get their first full-time job than did either general or academic program graduates.
2. While significant, the differences in time required to get the first job do not show the non-vocationals to be at a serious disadvantage.

TABLE **8.7.2** ACTIVITY IN LOOKING FOR A JOB (GRADUATES PRESENTLY EMPLOYED FULL-TIME)

WERE YOU LOOKING FOR A JOB DURING MOST OF THAT TIME	TOTAL ALL GRADUATES			CLASS 1 CITIES			CLASS 2 CITIES			CLASS 3 CITIES		
	ACAD	GEN	VOC	ACAD	GEN	VOC	ACAD	GEN	VOC	ACAD	GEN	VOC
YES	203	1051	1711	62	257	476	135	517	868	6	277	367
	45.4	40.1	43.3	45.6	39.8	41.4	45.3	46.7	46.0	46.2	32.1	40.2
NO	244	1567	2241	74	389	675	163	591	1019	7	587	547
	54.6	59.9	56.7	54.4	60.2	58.6	54.7	53.3	54.0	53.8	67.9	59.8
TOTAL	447	2618	3952	136	646	1151	298	1108	1887	13	864	914
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 8.8 METHODS USED TO OBTAIN FIRST JOB AFTER HIGH SCHOOL (GRADUATES PRESENTLY EMPLOYED FULL-TIME)

METHOD USED TO GET FIRST JOB AFTER HIGH SCHOOL	TOTAL ALL GRADUATES ACAD	GEN	VOC	CLASS 1 CITIES ACAD	GEN	VOC	CLASS 2 CITIES ACAD	GEN	VOC	CLASS 3 CITIES ACAD	GEN	VOC
ON MY OWN, WITHOUT ANY HELP...	250 43.6	1275 35.8	1458 24.9	79 47.0	312 35.8	397 23.1	166 43.1	499 34.6	683 24.9	5 25.0	464 37.3	378 27.1
ALREADY HAD JOB WITH EMPLOYER.	84 14.7	748 21.0	1559 26.6	21 12.5	180 20.6	424 24.7	57 14.8	255 17.7	716 26.1	6 30.0	313 25.2	419 30.0
THRU SCHOOL TEACHER	12 2.1	117 3.3	481 8.2	5 3.0	26 3.0	193 11.2	7 1.8	53 3.7	193 7.0		38 3.1	95 6.8
THRU SCHOOL COUNSELOR	22 3.8	112 3.1	208 3.5	2 1.2	18 2.1	45 2.6	20 5.2	65 4.5	123 4.5		29 2.3	40 2.9
THRU SCHOOL PLACEMENT SERVICE.	20 3.5	117 3.3	477 8.1	2 1.2	23 2.6	147 8.6	18 4.7	57 3.9	258 9.4		37 3.0	72 5.2
PRIVATE EMPLOYMENT AGENCY	24 4.2	229 6.4	266 4.5	8 4.8	87 10.0	100 5.8	14 3.6	91 6.3	116 4.2	2 10.0	51 4.1	50 3.6
STATE EMPLOYMENT AGENCY	15 2.6	138 3.9	246 4.2	3 1.8	24 2.8	60 3.5	12 3.1	73 5.1	125 4.5		41 3.3	61 4.4
THRU PARENT OR RELATIVE	56 9.8	389 10.9	336 5.7	15 8.9	97 11.1	106 6.2	39 10.1	162 11.2	137 5.0	2 10.0	130 10.5	93 6.7
THRU PERSONAL OR FAMILY FRIEND	90 15.7	435 12.2	728 12.4	33 19.6	105 12.0	203 11.8	52 13.5	189 13.1	348 12.7	5 25.0	141 11.3	177 12.7
TOTAL	573 100.0	3560 100.0	5860 100.0	168 100.0	872 100.0	1716 100.0	385 100.0	1444 100.0	2748 100.0	20 100.0	1244 100.0	1396 100.0

SUMMARY :

1. A greater percentage of the non-vocationals reported they got their job on their own, without help.
2. A greater percentage of vocationals reported they already had job prior H.S. completion.
3. A greater percentage of vocationals credit school sources for help in getting their first job.

TABLE 8.13 HOURLY EARNINGS ON PRESENT JOB (GRADUATES PRESENTLY EMPLOYED FULL-TIME)

WHAT IS YOUR PRESENT HOURLY PAY RATE (BEFORE DEDUCTIONS)	TOTAL ALL GRADUATES			CLASS 1 CITIES			CLASS 2 CITIES			CLASS 3 CITIES		
	ACAD	GEN	VOC	ACAD	GEN	VOC	ACAD	GEN	VOC	ACAD	GEN	VOC
1.00 - 1.49	11	101	148	3	21	28	8	33	78		47	42
	2.0	2.9	2.6	1.8	2.5	1.8	2.1	2.3	2.5		3.9	3.1
1.50 - 1.99	156	966	1409	60	216	311	85	363	669	11	387	429
	27.8	28.0	25.1	36.8	25.9	19.5	22.5	25.8	25.3	55.0	32.0	31.2
2.00 - 2.49	270	1430	2334	78	341	662	187	616	1151	5	473	521
	48.1	41.5	41.5	47.9	40.9	41.5	49.5	43.8	43.5	25.0	39.1	37.8
2.50 - 2.99	63	553	1064	11	141	365	53	244	479	4	168	220
	12.1	16.0	18.9	6.7	16.9	22.9	14.0	17.3	18.1	20.0	13.9	16.0
3.00 - 3.49	30	231	369	3	59	118	27	90	151		82	100
	5.3	6.7	6.6	1.8	7.1	7.4	7.1	6.4	5.7		6.8	7.3
3.50 - 3.99	15	96	168	6	35	69	9	31	66		30	33
	2.7	2.8	3.0	3.7	4.2	4.3	2.4	2.2	2.5		2.5	2.4
4.00 AND OVER	11	72	130	2	20	44	9	30	54		22	32
	2.0	2.1	2.3	1.2	2.4	2.8	2.4	2.1	2.0		1.8	2.3
TOTAL	561	3449	5622	163	833	1597	378	1407	2648	20	1209	1377
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MEAN EARNINGS	2.29	2.31	2.35	2.18	2.36	2.45	2.34	2.32	2.32	2.07	2.26	2.30

SUMMARY

1. The differences are significant and favor the vocationals, except in the Class II cities. Overall, the difference in earnings are not impressive for the first six months after high school.

TABLE 8.16.1 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (ALL CLASS OF 70 GRADUATES)

	TOTAL ALL GRADUATES			CLASS 1 CITIES			CLASS 2 CITIES			CLASS 3 CITIES		
	ACAD	GEN	VOC	ACAD	GEN	VOC	ACAD	GEN	VOC	ACAD	GEN	VOC
WHERE ARE YOU NOW LOCATED												
SAME CITY AS HIGH SCHOOL	3460	14923	12523	1179	4588	3771	2031	5951	5786	250	4354	2966
	62.6	71.0	88.3	63.3	72.5	88.4	64.1	72.5	90.7	50.0	67.6	84.0
SAME STATE, DIFFERENT CITY ...	1138	2564	1058	375	1187	339	606	1072	355	157	1305	364
	20.6	16.9	7.5	20.1	18.8	7.9	19.1	13.1	5.6	31.4	20.1	10.3
DIFFERENT STATE	933	2542	595	309	554	158	531	1188	238	93	800	199
	16.9	12.1	4.2	16.6	8.8	3.7	16.8	14.5	3.7	18.6	12.3	5.6
TOTAL	5531	21029	14176	1863	6329	4268	3168	8211	6379	500	6459	3529
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SUMMARY

1. The substantial difference in mobility is explained by the greater percentage of non-vocationals who are attending college at locations other than in the city where they went to high school.

TABLE 8.16.2 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (GRADUATES PRESENTLY EMPLOYED FULL-TIME)

	TOTAL ALL GRADUATES			CLASS 1 CITIES			CLASS 2 CITIES			CLASS 3 CITIES		
	ACAD	GEN	VOC	ACAD	GEN	VOC	ACAD	GEN	VOC	ACAD	GEN	VOC
WHERE ARE YOU NOW LOCATED (PRESENTLY EMPLOYED FULL-TIME)												
SAME CITY AS HIGH SCHOOL	524 93.9	3227 93.7	5181 94.6	156 94.0	786 93.6	1539 95.7	347 94.0	1299 93.4	2399 94.4	21 91.3	1142 94.2	1243 93.5
SAME STATE, DIFFERENT CITY ...	23 4.1	120 3.5	225 4.1	5 3.0	34 4.0	5.6 3.5	17 4.6	47 3.4	108 4.3	1 4.3	39 3.2	61 4.6
DIFFERENT STATE	11 2.0	96 2.8	72 1.3	5 3.0	20 2.4	13 .8	5 1.4	45 3.2	33 1.3	1 4.3	31 2.6	26 2.0
TOTAL	558 100.0	3443 100.0	5478 100.0	166 100.0	840 100.0	1608 100.0	369 100.0	1391 100.0	2540 100.0	23 100.0	1212 100.0	1330 100.0

SUMMARY

1. For those who are employed full-time, there is no significant mobility difference. The academics are no more likely to move out of the city for employment than are the vocationals.

TABLE 8.16.3 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (ALL GRADUATES PRESENTLY ATTENDING COLLEGE / SCHOOL)

	TOTAL ALL GRADUATES			CLASS 1 CITIES			CLASS 2 CITIES			CLASS 3 CITIES		
	ACAD	GEN	VOC	ACAD	GEN	VOC	ACAD	GEN	VOC	ACAD	GEN	VOC
WHERE ARE YOU NOW LOCATED												
(ATTENDING COLLEGE/SCHOOL)												
SAME CITY AS HIGH SCHOOL	2632	9368	4647	967	3304	1528	1461	3545	2016	204	2519	1103
	57.1	62.9	81.1	59.3	67.3	80.8	57.7	63.7	85.9	45.9	57.0	73.3
SAME STATE, DIFFERENT CITY ...	1101	3334	735	368	1126	260	581	978	207	152	1230	268
	23.9	22.4	12.8	22.5	22.9	13.7	22.9	17.6	8.8	34.2	27.9	17.9
DIFFERENT STATE	875	2190	351	297	479	103	490	1044	125	88	667	123
	19.0	14.7	6.1	18.2	9.8	5.4	19.4	18.8	5.3	19.8	15.1	8.2
TOTAL	4608	14892	5733	1632	4909	1891	2532	5567	2348	444	4416	1494
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SUMMARY

1. More of the non-vocationals go out of the city for their higher education.

CHAPTER 9. ANALYSIS BY RELATEDNESS OF EMPLOYMENT

THE ISSUE

The purpose for comparing the survey data for graduates in and out of the field for which trained is to determine (1) whether those in the field are better off than those out of the field on selected outcome variables and (2) what variables differentiate those who enter the occupations for which trained from those who don't. Presumably, such differentiation will provide a basis for recommendations to improve placement into the fields for which graduates are trained.

Each table herein presented has been discussed under its equivalent type heading in Chapter 3. At the bottom of each table, there appears a brief summary of the conclusions drawn. For more details, consult the discussion in Chapter 3.

SUMMARY OF FINDINGS

A summary of the findings in terms of differences between vocational graduates employed in and out of their field of study is given below:

TABLE	TITLE	DIFFERENCE
9.1	Order of Choice for Vocational Course Taken	Substantial
9.2	Sources of Influence on Vocational Course Selection	Significant
9.3	Occupational Information at Time of Course Choice	Substantial
9.4	Plans to Work in Occupation After High School	Substantial
9.6	Stability of Employment with First Employer	Significant
9.7	Time Required to Obtain First Full-Time Job	Substantial
9.8	Methods Used to Obtain First Full-Time Job	Substantial
9.13	Hourly Earnings on Present Full-Time Job	Significant
9.16	Present Residence of Class of '70 Graduates	None

TABLE 9.1 ORDER OF CHOICE OF VOCATIONAL COURSE TAKEN (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

	TOTAL GRADS				WHITE				BLACK			
	MALE		FEMALE		MALE		FEMALE		MALE		FEMALE	
DID YOU GET TO TAKE THE COURSE OF YOUR 1ST, 2ND OR 3RD CHOICE	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
FIRST CHOICE	579 89.1	907 71.6	1567 90.9	1231 76.8	306 89.2	477 78.6	945 93.4	607 81.8	99 81.1	192 60.4	323 83.7	330 68.6
SECOND CHOICE	47 7.2	140 11.1	124 7.2	217 13.5	29 8.5	55 9.1	59 5.8	85 11.5	12 9.8	47 14.8	49 12.7	94 19.5
THIRD CHOICE	12 1.8	49 3.9	16 .9	49 3.1	4 1.2	8 1.3	4 .4	17 2.3	6 4.9	26 8.2	8 2.1	25 5.2
NO CHOICE AVAILABLE	12 1.8	170 13.4	15 .9	106 6.6	4 1.2	67 11.0	4 .4	33 4.4	5 4.1	53 16.7	6 1.6	32 6.7
TOTAL	650 100.0	1266 100.0	1723 100.0	1603 100.0	343 100.0	607 100.0	1012 100.0	742 100.0	122 100.0	318 100.0	386 100.0	481 100.0

SUMMARY

1. Graduates employed in the field for which trained are substantially more likely to report that they got the vocational course of their preferred (first) choice than those employed out of their field.

2. The basic difference reported is found among both male and female graduates.

3. The basic difference reported is found among both white and black graduates.

TABLE 9.2 SOURCES OF INFLUENCE ON VOCATIONAL COURSE SELECTION (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

	........TOTAL GRADS........				............WHITE............				............BLACK............			
	MALE		FEMALE		MALE		FEMALE		MALE		FEMALE	
ASIDE FROM YOURSELF, WHO INFLUENCED YOUR VOCATIONAL COURSE CHOICE THE MOST	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
GUIDANCE COUNSELOR	63 10.1	179 14.5	197 11.6	228 14.3	27 8.2	78 13.2	110 11.2	91 12.4	15 11.7	56 17.7	57 14.7	85 17.3
VOCATIONAL TEACHER	128 20.5	180 14.5	227 13.4	164 10.3	57 17.4	80 13.5	118 12.0	69 9.4	36 28.1	56 17.7	53 13.7	61 12.4
OTHER SCHOOL PERSONNEL	42 6.7	61 4.9	61 3.6	64 4.0	19 5.8	22 3.7	27 2.7	22 3.0	15 11.7	26 8.2	17 4.4	32 6.5
PARENTS	147 23.6	261 21.1	590 34.8	470 29.5	83 25.3	142 23.9	353 35.8	235 32.1	27 21.1	58 18.3	127 32.7	120 24.5
BROTHER / SISTER	39 6.3	74 6.0	149 8.8	101 6.3	24 7.3	42 7.1	96 9.7	44 6.0	4 3.1	9 2.8	29 7.5	32 6.5
RELATIVE / FAMILY FRIEND	66 10.6	122 9.9	162 9.6	143 9.0	41 12.5	61 10.3	88 8.9	65 8.9	8 6.3	29 9.1	44 11.3	47 9.6
FRIENDS OF YOUR AGE GROUP	77 12.3	224 18.1	209 12.3	282 17.7	44 13.4	103 17.4	143 14.5	146 20.0	14 10.9	52 16.4	37 9.5	72 14.7
SOMEONE OTHER THAN ABOVE	62 9.9	137 11.1	100 5.9	143 9.0	33 10.1	65 11.0	51 5.2	59 8.1	9 7.0	31 9.8	24 6.2	41 8.4
TOTAL	624 100.0	1238 100.0	1695 100.0	1595 100.0	328 100.0	593 100.0	986 100.0	731 100.0	128 100.0	317 100.0	388 100.0	490 100.0

SUMMARY

1. Those employed in their field acknowledge the influence of vocational teachers more frequently.
2. Those employed out of their field acknowledge the influence of counselors and friends of their own age more frequently.

TABLE **9.3** INFORMATION ABOUT OCCUPATION AT TIME OF COURSE CHOICE (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

HOW WELL INFORMED WERE YOU ABOUT THE OCCUPATION WHEN YOU MADE YOUR COURSE CHOICE	........TOTAL GRADS........				...........WHITE...........				...........BLACK...........			
	MALE		FEMALE		MALE		FEMALE		MALE		FEMALE	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
EXCELLENT INFORMATION	147 22.1	182 13.8	396 22.6	230 13.9	68 19.5	78 12.4	226 22.0	101 13.5	27 20.8	60 17.6	99 25.0	84 16.5
GOOD INFORMATION	290 43.6	548 41.5	968 55.3	804 48.7	155 44.4	259 41.2	570 55.6	355 47.3	61 46.9	142 41.8	213 53.8	257 50.4
FAIR INFORMATION	171 25.7	447 33.8	330 18.8	501 30.4	87 24.9	227 36.1	198 19.3	241 32.1	35 26.9	102 30.0	69 17.4	135 26.5
POOR INFORMATION	57 8.6	145 11.0	57 3.3	115 7.0	39 11.2	65 10.3	31 3.0	53 7.1	7 5.4	36 10.6	15 3.8	34 6.7
TOTAL	665 100.0	1322 100.0	1751 100.0	1650 100.0	349 100.0	629 100.0	1025 100.0	750 100.0	130 100.0	340 100.0	396 100.0	510 100.0

SUMMARY

1. Graduates employed in their field of study appear to have been better informed about the occupation at the time of course selection than those employed out of their field.

2. The above generalization applies to both male and female graduates, and black and white graduates.

TABLE 9.4 PLANS TO WORK IN FIELD AT TIME OF COURSE CHOICE (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

DID YOU PLAN TO WORK IN THAT OCCUPATION WHEN YOU SELECTED YOUR HIGH SCHOOL COURSE (GRADS PRESENTLY EMPLOYED)	.........TOTAL GRADS.........				............WHITE............				............BLACK............			
	MALE		FEMALE		MALE		FEMALE		MALE		FEMALE	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
YES, DEFINITELY	378 57.2	379 28.6	1034 59.5	461 28.1	197 56.9	164 26.2	624 61.3	209 27.9	62 48.4	116 34.6	235 59.9	163 32.1
YES, BUT NOT DEFINITE	240 36.3	656 49.9	626 36.0	899 54.9	125 36.1	323 51.7	353 34.7	420 56.1	59 46.1	162 48.4	137 34.9	264 52.1
NO, BUT NOT DEFINITE	33 5.0	193 14.7	58 3.3	199 12.1	18 5.2	99 15.8	33 3.2	88 11.7	6 4.7	36 10.7	11 2.8	53 10.5
NO, DEFINITELY	10 1.5	86 6.5	20 1.2	79 4.8	6 1.7	39 6.2	8 .8	32 4.3	1 .8	21 6.3	9 2.3	27 5.3
TOTAL	661 100.0	1314 100.0	1738 100.0	1638 100.0	346 100.0	625 100.0	1018 100.0	749 100.0	128 100.0	335 100.0	392 100.0	507 100.0

SUMMARY

1. Graduates employed in their field of study indicate a higher percentage of plans to work in the occupation at the time of course selection than do those employed out of the field of study.
2. The basic generalization applies to both male and female graduates, and to black and white graduates.

TABLE 9.6 STABILITY WITH FIRST JOB EMPLOYER (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

	........TOTAL GRADS........				...........WHITE...........				...........BLACK...........			
	MALE		FEMALE		MALE		FEMALE		MALE		FEMALE	
IS YOUR PRESENT JOB YOUR FIRST JOB SINCE HIGH SCHOOL	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
YES	474	841	1384	1198	248	403	825	564	89	201	294	351
	71.4	62.7	79.1	71.8	71.5	63.4	80.9	74.5	68.5	58.1	73.9	68.7
NO	190	501	365	471	99	233	195	193	41	145	104	160
	28.6	37.3	20.9	28.2	28.5	36.6	19.1	25.5	31.5	41.9	26.1	31.3
TOTAL	664	1342	1749	1669	347	636	1020	757	130	346	398	511
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SUMMARY

1. Graduates employed in their field of study have greater stability with their first employer than do those employed out of their field of study.
2. The basic generalization applies to both male and female graduates and black and white graduates. First employer stability is the least for male, black graduates employed outside their field of study. About 42% had already left their first employer for reasons unknown to the survey.

TABLE 9.7 TIME REQUIRED TO OBTAIN FIRST FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

HOW MANY WEEKS AFTER HIGH SCHOOL DID IT TAKE TO GET YOUR FIRST JOB	........TOTAL GRADS........				...........WHITE...........				...........BLACK...........			
	MALE		FEMALE		MALE		FEMALE		MALE		FEMALE	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
IMMEDIATELY	321 58.5	412 36.4	655 45.1	502 35.4	178 61.2	220 41.0	380 44.8	228 35.4	53 46.9	83 27.8	139 43.0	135 31.1
1 - 2 WEEKS	141 25.7	273 24.1	414 28.5	320 22.6	73 25.1	135 25.2	243 28.6	151 23.4	27 23.9	62 20.7	93 28.8	92 21.2
3 - 4 WEEKS	65 11.8	161 14.2	169 11.6	196 13.8	36 12.4	64 11.9	98 11.5	86 13.4	18 15.9	59 19.7	42 13.0	65 15.0
5 - 6 WEEKS	18 3.3	84 7.4	85 5.9	94 6.6	7 2.4	38 7.1	51 6.0	47 7.3	9 8.0	31 10.4	19 5.9	28 6.5
7 - 8 WEEKS	25 4.6	93 8.2	75 5.2	99 7.0	11 3.8	35 6.5	48 5.7	45 7.0	7 6.2	32 10.7	17 5.3	34 7.8
9 - 10 WEEKS	26 4.7	95 8.4	86 5.9	146 10.3	12 4.1	42 7.8	50 5.9	61 9.5	9 8.0	24 8.0	25 7.7	55 12.7
11 - 12 WEEKS	16 2.9	49 4.3	66 4.5	76 5.4	8 2.7	25 4.7	38 4.5	36 5.6	5 4.4	15 5.0	17 5.3	28 6.5
13 - 14 WEEKS	7 1.3	22 1.9	10 .7	36 2.5	3 1.0	10 1.9	4 .5	13 2.0	1 .9	8 2.7	3 .9	11 2.5
15 - 16 WEEKS	6 1.1	15 1.3	22 1.5	26 1.8	5 1.7	9 1.7	13 1.5	14 2.2	1 .9	2 .7	4 1.2	8 1.8
MORE THAN 4 MONTHS	5 .9	23 2.0	20 1.4	32 2.3	3 1.0	9 1.7	13 1.5	15 2.3		7 2.3	3 .9	10 2.3
TOTAL	549 100.0	1131 100.0	1451 100.0	1419 100.0	291 100.0	536 100.0	849 100.0	644 100.0	113 100.0	299 100.0	323 100.0	434 100.0
MEAN WEEKS	2.27	3.69	2.89	4.01	2.18	3.43	2.92	3.98	2.90	4.24	3.05	4.43

SUMMARY

1. Those employed in the field for which trained got their first full-time job sooner overall than those employed outside of the field.
2. The generalization applies to both males and females, and blacks and whites.

TABLE 9.8 METHODS USED TO OBTAIN FIRST FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

METHOD USED TO GET FIRST JOB AFTER HIGH SCHOOL	TOTAL GRADS				WHITE				BLACK			
	MALE		FEMALE		MALE		FEMALE		MALE		FEMALE	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
ALREADY HAD JOB WITH EMPLOYER	218	349	457	429	116	187	258	195	30	66	93	103
	32.9	25.9	26.2	25.7	33.5	29.3	25.4	25.8	23.1	18.9	23.4	20.1
THRU VOCATIONAL TEACHER	103	63	198	73	62	33	122	33	23	17	46	32
	15.5	4.7	11.3	4.4	17.9	5.2	12.0	4.4	17.7	4.9	11.6	6.3
THRU SCHOOL COUNSELOR	28	47	62	54	8	9	28	17	9	18	21	25
	4.2	3.5	3.6	3.2	2.3	1.4	2.8	2.2	6.9	5.2	5.3	4.9
THRU SCHOOL PLACEMENT OFFICE..	63	66	200	109	30	35	115	51	13	15	55	45
	9.5	4.9	11.5	6.5	8.7	5.5	11.3	6.7	10.0	4.3	13.9	8.8
THRU OTHER SCHOOL PERSONNEL ..	11	18	29	36	5	5	17	9	3	7	9	20
	1.7	1.3	1.7	2.2	1.4	.8	1.7	1.2	2.3	2.0	2.3	3.9
PRIVATE EMPLOYMENT AGENCY	7	18	116	103	3	4	69	52		8	25	28
	1.1	1.3	6.6	6.2	.9	.6	6.8	6.9		2.3	6.3	5.5
STATE EMPLOYMENT AGENCY	15	58	68	89	5	11	29	18	4	29	20	37
	2.3	4.3	3.9	5.3	1.4	1.7	2.9	2.4	3.1	8.3	5.0	7.2
THRU PARENT OR RELATIVE	33	136	65	72	17	70	40	32	8	32	14	28
	5.0	10.1	3.7	4.3	4.9	11.0	3.9	4.2	6.2	9.2	3.5	5.5
THRU FAMILY/PERSONAL FRIEND ..	52	232	160	233	29	121	94	115	10	55	36	64
	7.8	17.2	9.2	14.0	8.4	19.0	9.2	15.2	7.7	15.8	9.1	12.5
ON MY OWN, WITHOUT ANY HELP ..	133	362	390	469	71	163	245	234	30	102	78	130
	20.1	26.8	22.3	28.1	20.5	25.5	24.1	31.0	23.1	29.2	19.6	25.4
TOTAL	663	1349	1745	1667	346	638	1017	756	130	349	397	512
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SUMMARY

1. Vocationals in the field of study credit school sources more frequently than those out of the field of study.

TABLE 9.13 HOURLY EARNINGS ON PRESENT FULL-TIME JOB (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

WHAT IS YOUR PRESENT HOURLY PAY RATE (BEFORE DEDUCTIONS)	........TOTAL GRADS........				...........WHITE...........				...........BLACK...........			
	MALE		FEMALE		MALE		FEMALE		MALE		FEMALE	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
1.00 - 1.49	7 1.1	27 2.1	43 2.6	57 3.5	3 .9	12 2.0	33 3.5	28 3.8	2 1.6	14 4.1	9 2.4	18 3.6
1.50 - 1.99	96 15.0	215 16.5	455 27.8	553 34.2	61 18.2	104 17.0	317 33.6	289 39.7	22 18.0	69 20.2	84 22.4	143 28.8
2.00 - 2.49	204 31.9	433 33.2	781 47.7	747 46.2	123 36.7	210 34.3	434 46.0	324 44.5	32 26.2	116 33.9	139 37.1	228 46.0
2.50 - 2.99	171 26.8	224 24.8	283 17.3	193 11.9	76 22.7	137 22.3	125 13.3	66 9.1	34 27.9	82 24.0	111 29.6	77 15.5
3.00 - 3.49	99 15.5	153 11.7	50 3.1	30 1.9	36 10.7	64 10.4	19 2.0	7 1.0	23 18.9	40 11.7	25 6.7	15 3.0
3.50 - 3.99	38 5.9	93 7.1	14 .9	12 .7	25 7.5	49 8.0	10 1.1	3 .4	5 4.1	13 3.8	2 .5	6 1.2
4.00 AND OVER	24 3.8	59 4.5	13 .8	24 1.5	11 3.3	37 6.0	5 .5	11 1.5	4 3.3	8 2.3	5 1.3	9 1.8
TOTAL	639 100.0	1304 100.0	1639 100.0	1616 100.0	335 100.0	613 100.0	943 100.0	728 100.0	122 100.0	342 100.0	375 100.0	496 100.0
MEAN EARNINGS	2.62	2.59	2.23	2.16	2.61	2.55	2.16	2.10	2.60	2.45	2.36	2.23

SUMMARY

1. Those employed in their field earn slightly more than those employed out of their field within the first six months after high school.

TABLE 9.16 PRESENT RESIDENCE OF CLASS OF 70 GRADUATES (VOCATIONALS PRESENTLY EMPLOYED FULL-TIME)

	.........TOTAL GRADS.........				............WHITE............				............BLACK............			
	MALE		FEMALE		MALE		FEMALE		MALE		FEMALE	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
WHERE ARE YOU NOW LOCATED (GRADS PRESENTLY EMPLOYED)												
SAME CITY AS HIGH SCHOOL	578 93.2	1158 93.2	1566 96.1	1459 95.2	312 94.5	555 93.3	924 96.6	692 97.1	105 92.1	298 94.3	352 97.8	445 97.8
SAME STATE, DIFFERENT CITY ...	35 5.6	59 4.7	50 3.1	56 3.7	16 4.8	27 4.5	25 2.6	16 2.2	7 6.1	12 3.8	7 1.9	4 .9
DIFFERENT STATE	7 1.1	26 2.1	13 .8	18 1.2	2 .6	13 2.2	8 .8	5 .7	2 1.8	6 1.9	1 .3	6 1.3
TOTAL	620 100.0	1243 100.0	1629 100.0	1533 100.0	330 100.0	595 100.0	957 100.0	713 100.0	114 100.0	316 100.0	360 100.0	455 100.0

SUMMARY

1. No significant difference between the ins and the outs in mobility out of the city.

CHAPTER 10. GENERAL CONCLUSIONS AND RECOMMENDATIONS

SUMMARY OF THE MAJOR FINDINGS

The reader who has read Chapter 3 and confirmed generalizations made therein by studying the tables presented in Chapters 4 through 9 has covered more data than he can possibly recall. Undoubtedly, he has accumulated impressions and generalizations of his own. However, to set the stage for the conclusions and recommendations that follow, a brief summary of the highlights is in order. Since even a one line summary per table would be too much, we will be selective and summarize only those elements which have a bearing on the manpower conversion model objectives and the concept that public secondary vocational education is a major source of skilled manpower servicing both the employment-bound students and the employers in need of skilled manpower. We freely admit a bias. We are looking at secondary vocational education to see if it conforms to what would be the case if the administrators were earnestly convinced of the merits of the manpower conversion model and embraced the objectives derived therefrom as the objectives of vocational education. We know, of course, that this is not the case. Now, here are the major findings restated in summary form.

1. Choice of vocational course. About 22 percent of the graduates reported that they did not get the vocational course of their preferred first choice.

2. Vocational course selection. About 67 percent of the graduates reported a non-school source as the most important source of influence upon vocational course selection.

3. Occupational information prior course selection. About 36 percent of the students reported that their knowledge of the occupation selected for study was poor or only fair at the time they selected their vocational course.

4. Plans to work in the field of study. Only 39 percent of the graduates reported that, at the time of vocational course selection,

they definitely planned to work in the occupation studied after completion of high school.

5. Disposition after high school. Only about 54 percent were available for full-time employment. The rest were in college, school, military service or not available for work for personal reasons. Of those available for work, about 71 percent were employed full-time, 7 percent were employed part-time, and 22 percent were unemployed and looking for full-time work. In total, 38 percent of the Class of '70 respondents were employed full-time and not attending college or school.

6. Stability with first employer. About 28 percent of those employed full-time were no longer with their first full-time job employer within six months after graduation, despite the recession period.

7. Time required to get the first job. Of those employed full-time, about 27 percent had their job lined up upon graduation. Within a month, 73 percent of those found to be employed full-time had found their first job. About 27 percent required more than a month to find their first job.

8. Methods used to obtain the first job. Only 22 percent of the graduates credited school sources with helping them find their first jobs. A greater percentage (25%) reported that they found their jobs on their own without anyone's help.

9. Employment in field for which trained. Of those employed full-time, only 45 percent were employed in the field for which trained. Based upon total graduate output, that 45 percent is 16.3 percent of all Class of '70 graduates.

10. Employment out of the field for which trained. Of the 55 percent that were employed out of the field for which trained about 85 percent were employed in unskilled or semi-skilled jobs that could have been held without the benefit of vocational education.

11. Preparation for employment in the field. Of those employed in the field, a resounding 95 percent reported that their occupational

training had been either excellent or good preparation for their present employment.

12. Reasons for not getting job in field of study. Of those employed out of the field, about 20 percent reported that they could not find a job in the field, about 14 percent reported that they did not feel qualified and about 66 percent reported that they did not want work in their field of study for various reasons, including never having planned to do so in the first place.

13. Hourly earnings of vocational graduates. Of those employed full-time, the mean hourly earnings were $2.35 per hour. Those employed in the field for which trained earn from 5 to 15 cents per hour more than those employed out of their field, depending upon sex and race.

15. Present location of graduates. About 88 percent of all vocational graduates still reside in the same city in which they attended high school. Of those employed full-time, about 95 percent are still in the same city.

Those are the basic findings. The reader will recall they vary with individual cities, race of graduates, sex of graduates, and type of vocational program completed.

STATEMENT OF POSITION

It is appropriate, before we discuss conclusions and recommendations, to state our biases and attitudes about vocational education. We are enthusiastically for the expansion and strengthening of vocational education at both the secondary and post-secondary level. That attitude has evolved out of eight years of research in vocational education.

It is exactly because of that attitude that our position will be one of a vigorous effort to concentrate on what is wrong with vocational education. Our primary concern will be to emphasize the weaknesses, the problem areas that require an objective, let-the-chips-fall-where-they-may approach that will, in the end, strengthen vocational education and in doing so win greater public support. We shall not mince words in describing what are the basic problems. We freely admit that we are concentrating our descriptions and conclusions on that portion of the cup that is empty rather than the portion that is full. We fully expect that many vocational educators, at Federal, state and local levels, will not like what we have to say. These are not the persons who will, in the long run, strengthen vocational education. That will only be done by those who have a stomach for persistently identifying the weaknesses, making their best efforts to correct such weaknesses by process changes, and evaluating the results of their changes in terms of the basic measurable objectives derived from the manpower conversion equation.

MAJOR GENERAL CONCLUSIONS

This section is concerned with basic weaknesses that underlie the total process of vocational education in major cities. We shall not be concerned with specific details of the process that are in need of improvement. Such details, to the extent that our data points them out, will be mentioned in a later publication.

Our primary concern is with identifying and describing the basic problems as we see them. Recommendations for the solutions of these problems shall be secondary for the very good reason that it would be presumptuous to pretend we have the answers. If we can convince those who have management control over vocational education, and more importantly, those who can stimulate the vocational education administrators, to drop their defensive attitudes and address themselves to the basic problems, we will have accomplished our purpose. When that is done, the details of the solutions will emerge and a plethora of recommendations will follow.

The following basic problems will be discussed:

1. Absence of a manpower conversion concept.
2. Absence of measurable vocational education objectives.
3. Inadequate vocational education supporting systems.
4. Undefined responsibility and accountability.
5. Inappropriate administrative organization.
6. Inadequate relations with employer community.
7. Inadequate relations with community of parents.

8. Absence of vocational education operational research.
9. Inadequate involvement of teacher personnel.
10. Inadequacies of present education management.

ABSENCE OF A MANPOWER CONVERSION CONCEPT

The major city school systems are lacking in a theoretical model, such as the manpower conversion system, which relates vocational education to the business of manpower conversion. The issue is not that they are without the specific manpower conversion model that we have advocated. Others will undoubtedly develop more sophisticated models in the future. The issue is that they operate without any theoretical models for vocational education. They have no foundation model that relates vocational education to the societal good, much less to long-standing national policies, such as the full-employment policy. The result is an absence and/or confusion of vocational education goals, objectives, policies and practices that together comprise a coherent total system. The absence of a total system viewpoint leads to all manner of internal contradictions. In the same school system, one administrator sees vocational education as a kind of custodial care to keep the young in school, another sees it as an exercise to resolve the what-am-I identity crises that young people are supposed to go through, and still another sees it as an effort to develop graduates who leave with "marketable occupational skills" even though he cares not one whit to collect the kind of data that would tell him whether the output is indeed selling its newly acquired occupational skills.

The absence of a formally adapted (and thoroughly introcepted) manpower conversion model means that vocational educators are administrators of vocational programs rather than managers of manpower conversion. The means to the ends becomes the ends, namely to administer vocational education programs. As an educator-administrator, the educator has both feet firmly planted in the educational process. As a manager of manpower conversion, the educator must has one foot planted in the public and employer community that he serves and the other planted in the vocational education process. While these are loose figures of speech, they do emphasize the distinction. Once adopted, a broadly conceived manpower conversion model forces the educator to be concerned with such basic problem areas as (1) his supply of non-college bound, undeveloped manpower resources, (2) the harmonizing of the vocational education process under his jurisdiction with other available sources of manpower development in his area, (3) the manpower requirements of the employer community serviced by the school system, (4) the improvement of relations with the employer community and the parent community, (5) the relevance of curricula to occupational skill and knowledge requirements, (6) the adoption of specific measurable objectives that indicate the direction in which the system must move -- in short, the very basic problems that we shall be discussing in the sections that follow are the problems that would demand the attention of the educator-manager of a manpower conversion system.

Why has the manpower conversion model of vocational education not prevailed? While there is no single reason, there is one reason that is the key to the necessary change in thinking. That reason is a lack of leadership at the top of the pyramid. The U. S. Office of Education has failed to set forth a theoretical model for vocational education that would stimulate the adoption of similar models at state levels. The leadership at the state-levels has similarly failed to develop appropriate manpower conversion models for the guidance of state-level management of vocational education (Pennsylvania is an exception) and at the major city school district levels, the beleaguered superintendents are too busy putting out fires to have time (or concern) for theoretical models of vocational education -- and that is why they will continue to dissipate their energies in putting out fires and the politics of survival.

It is interesting that a recent U. S. Office of Education Associate Commissioner of Vocational Education issued an excellent book, after he left office, concerned with manpower development and devoting a chapter to the very same manpower conversion model described in Chapter 1, and yet, when in office, he did not convey the same concepts officially as he later did in his book.

It seems to us that one of the first priorities of the U. S. Office of Education, given its announced dedication to career education, would be to adopt some version of a manpower conversion model similar to that discussed in Chapter 1. And then, the action should be to stimulate discussion, debate, disagreement, etc. until a final ("for the time being") version can be put forth as a model for the states to consider. The present practice of requiring states to submit a state master plan for vocational education might have the requirement for a state version of a manpower equation model. Objections that this is dictating to the states is cowardice hiding behind nonsense. In its present practices, the U. S. Office not only dictates the contents of such state plans, but also the formats to be followed. If it can request the minor details, there is no reason it can not request the states to formulate a theoretical model for vocational education.

The states, of course, don't need to wait. They don't need permission to anchor their vocational education programs to a manpower conversion equation of their own making. All they need is the conviction that it would clarify what vocational education is all about for their local school district superintendents, most of whom are less than enthusiastic about vocational education.

Even the major cities don't have to wait for word from above. All they need is someone in the appropriate position of authority -- usually not the vocational director -- with the good sense to recognize a fundamental rationale for vocational education.

Until there is a unifying theoretical model for vocational education, it will remain a mess of internal contradictions as to objectives, policies and procedures.

ABSENCE OF VOCATIONAL EDUCATION OBJECTIVES

It is difficult to understand, if one is naive, why major city school systems do not adopt, publish, publicize, and use as working tools a measurable set of vocational education objectives, preferably ones that can be logically derived from a theoretical model such as our manpower conversion equation. They simply don't do so. (Please write to us if you know of a major city that is an exception. Be sure to send a copy of the published vocational education objectives.)

Here is a major problem indeed. Without clearly stated measurable objectives, what are the dimensions along which vocational education should be making progress? How do we know progress is being made? How can the major city school districts evaluate vocational program effectiveness?

Perhaps the reader will recall our harangue on this issue in Chapter one.

The responsibility for this irresponsible state of affairs lies at all levels -- Federal, state and local.

Those responsible for vocational education in the U. S. Office of Education have never had the courage to put forth a model of a comprehensive set of measurable vocational education objectives. It is not a matter of honest ignorance, of not knowing that it would be desirable that there be Federally stated objectives as models for the states and localities to consider. In our opinion, it is a matter of fear of controversy and differences of opinion which is hidden behind an unofficial policy of not dictating to the states.

We are not talking about nebulously stated, high-sounding purposes or goals. There is no end of such statements. And they are as useless as yesterday's slogans. We are concerned with measurable objectives, yardsticks which can be used to assess the effectiveness of vocational education along an array of dimensions on which there can be some concensus that these are the things that are important about vocational education. It is nothing less than irresponsible for the U. S. Office of Education not to develop a comprehensive model of such objectives.

We don't pretend to know what each of the fifty states is doing in the area of basic measurable objectives for vocational education. If some have moved in this problem area, they are a very small minority. Pennsylvania has such objectives. Every school district has Department of Education approved statements of vocational education objectives. A comprehensive vocational education management information system (VEMIS) collects, organizes and reports data with respect to stated objectives. The VEMIS system is still under development in some phases, but what is presently operational will serve to illustrate the value of a body of objectives for vocational education management.

Needless to say, not a single Project Metro city had a published, comprehensive set of measurable vocational education objectives. Why? We gave our interpretation in Chapter 1. If one does not have clearly-stated, measurable objectives that cover the salient dimensions of vocational education, who can say that objectives were not met? What an inefficient way to operate a 1.8 billion dollar a year industry.

We recommend that (1) the U. S. Office of Education develop a comprehensive set of measurable vocational education objectives, (2) the states be required to submit their version of similar objectives in their annual state plans submitted to the U. S. Office of Education, (3) the U. S. Office of Education scratch its present set of vocational education report forms and develop new data requirements to reflect the basic Federally adopted objectives, and (4) that all school districts receiving Federal funds for vocational education be required to submit for state-level approval a similar body of vocational education objectives.

INADEQUATE VOCATIONAL EDUCATION SUPPORTING SYSTEMS

The main process of vocational education is the instructional process. Without the benefit of essential supporting systems, that process alone won't achieve the objectives of vocational education as herein derived. Supporting systems, as seen here, include the following:

1. Career orientation programs. The basic idea is to provide students with planned experiences in the middle grades that will provide them with a basis for career thinking and decisions in the later secondary grades.

2. Exploratory vocational programs. The basic idea is to provide students who have not resolved their vocational choice with a program of pre-vocational exploratory experiences, preferably in the year preceding the vocational curriculum choice, that will facilitate such choices with greater certainty than is now the case.

3. Occupational information programs. Students need better and more up-to-date occupational information about the family of occupations related to specific vocational curricula. Practical information is required about working conditions, skill requirements, promotion potential, starting earnings and earnings progression, possible

employers, and other matters likely to play a role in decision making.

4. Individual vocational counseling. All pre-vocational group counseling programs need the backup support of individual vocational counseling, preferably in a process that recognizes the reality of parental influence via parental involvement. Such counseling exists more in theory than in actual practice at the present time.

5. Supportive counseling and guidance. Many students, even after the vocational curriculum choice has been made, need close follow-up and/or opportunity to discuss problems that, if not resolved or ameliorated, will result in either low-level achievement or dropping out of school. As it is, too many students are left to stew with their own problems until (and not always then) they become a problem to the school.

6. Job placement services. Placement services are an integral part of the vocational education process. A well-conceived and administered job placement service is essential to the placement objectives derived from the manpower conversion equation. It provides the final pupil service that is the payoff for the many years that encompass the vocational education process. It is odd that school systems who acknowledge a responsibility for higher education placement services do not see the same responsibility for job placement services.

The foregoing pupil supporting sub-systems must in turn be supported by these additional sub-systems:

7. Manpower requirements information. The school systems need a sub-system for assessing local manpower requirements, changes and trends. Such information is essential for curriculum planning. The same subsystem can be used to update occupational information needed for career orientation and occupational information.

8. Employer community relations programs. The gap between the potential employers of vocational program graduates and the school systems is still great. Planned activities are needed that will strengthen relations between the potential employers of the vocational program

outputs and the school systems. Potential employers must be made to see the school system as a major source of entry-level skilled manpower.

9. *Parent community relations programs*. The career orientation exploratory vocational program and occupational information process for the student must be paralleled with a process that will bring parents along with the pre-vocational programs experienced by students. Parents are still the single most important source of influence on career decisions. Hence, schools must involve them more actively in the career orientation processes.

There is nothing new in any of the foregoing. It has all been said many times and in greater detail. Our point is that the whole concept of vocational education supporting systems is not receiving adequate recognition. There is a lack of systems thinking in the major city school districts that would establish unmistakably the necessity of adequate pupil and related vocational education subsystems. *Not a single Project Metro city can claim an effective program in any of the problem areas mentioned above*. Some starts have been made. A token facsimile of such programs exists in all major cities. All can, and do, claim that they have career orientation programs, exploratory vocational programs, occupational information programs, job placement services, etc. We simply claim that the efforts that presently exist are inadequate and don't do the job that such supporting subsystems have to do to assure continued progress in the basic vocational education objectives. (We are well aware that the major city school systems are lacking in resources. We are also aware that available resources are not used effectively.)

UNDEFINED RESPONSIBILITY AND ACCOUNTABILITY

First, a word about responsibility and accountability. The writer first discussed these concepts in relation to vocational education in 1965 (1). Since then, the concepts have been applied to general education, but more at the talk level than the deed level.

To us, the concept of responsibility means deriving from a basic set of educational objectives, specific written descriptions of those *action* responsibilities which each level of education management must undertake to achieve progress toward the educational objectives. It means communicating such responsibility descriptions to all levels of education management so that there is no misunderstanding of basically what the responsibilities are. It means exercise of controls to assure that responsibilities are being carried out.

To us, the concept of accountability means primarily a process of communicating evaluative data that relates to assigned responsibilities so that persons may know to what extent system or subsystem objectives are being met. Where objectives are not being met, accountability is any process by which those responsible reacknowledge their responsibility and develop courses of corrective actions necessary to make progress toward the objectives. It is a mistaken interpretation to associate accountability with penalities and/or removal of responsibilities. There may be extreme cases that warrant such extreme measures. However, such exceptions are likely to be so infrequent that they should not be associated with the concept of accountability. Accountability is best defined in terms of those courses of action which serve to reinvigorate motivation to achieve objectives. It applies equally whether there has or has not been definite progress toward objectives. Thus seen, accountability is not a threat, but a continuing challenge to the educator.

In no Project Metro city, and probably in no other major city school system, are the concepts of responsibility and accountability, as defined herein, applied to the different levels of education management. Let someone ask for a written description of education objective-related responsibilities of a principal and it won't be forthcoming. At the best, one will find short descriptions of position duties and responsibilities which are prepared for purposes unrelated to achievement of educational objectives. More commonly, there is nothing that spells out responsibilities relative to objectives. What we are really saying is that two major concepts of modern management -- responsibility and accountability -- are either not being employed or ineffectively employed in education.

INAPPROPRIATE ADMINISTRATIVE ORGANIZATION FOR EFFECTIVE VOCATIONAL EDUCATION

Most major city school systems reflect in their organizational structure the notion that vocational education is something apart from the mainstream of secondary education. The usual mechanism is to have a Director of Vocational Education or some such equivalent reporting to the Superintendent for Secondary Education or some such equivalent. The Director for Vocational Education does not, however, have a counterpart, like a Director for Academic or General Education. No one feels the need for the latter type of position. The effect of this arrangement is to separate the Superintendent for Secondary Education or his equivalent from direct operating concern with vocational education. Unfortunately, in most cities, the Director of Vocational Education or his equivalent title has no line authority over the principals who operate the schools offering vocational programs. This is a serious deficiency. The person who nominally knows most about vocational education from a district viewpoint has essentially a staff function rather than a line management function. This would be no serious problem if it were not usually the case that the Superintendent of Secondary Education delegated responsibility for vocational education to the Director of Vocational Education without providing the authority needed to exercise such responsibility.

Vocational education can be strengthened by creating a superintendent level position that has both the responsibility and authority to manage vocational education toward its basic objectives. Moreover, the position should be a stepping stone toward a higher level superintendent that reports directly to the school district superintendent. Vocational education directors are not only in a weak position from an organization structure standpoint, but also from a career ladder standpoint. They tend to be viewed as limited specialists, persons who will take care of the nitty-gritty peculiarities of vocational education. There are exceptions, of course, but they merely prove the point. When they occur, it is usually because of organizational accidents that suddenly attract attention to a competent vocational director.

The principle of our recommendation is easily stated. (1) Strengthen vocational education by subordinating the school heads who operate the vocational education programs to a superintendent level position that has both the responsibility and authority required to achieve vocational education objectives. (2) Make the position a stepping stone in the general education career ladder to assure the interest of the competent and career-minded administrator.

INADEQUATE RELATIONS WITH EMPLOYER COMMUNITY

Like most of us, the educator-administrator is more comfortable in his own domain, where his authority relations with others are defined and under control. To him, servicing the employer community is a figure of speech that does not necessarily imply an active, working relationship with the employers in the community. Such service can be, he thinks, rendered through the system and at a distance. if it ever was so, this is no longer so. Where ever education purports to be career education, there must be a working relationship at multiple management levels between education management and industrial/commercial management. Education has neither adequately conceived nor developed such relationships. Moreover, the initiative must come from the educators. Like it or not, the industrial and business managers can achieve their objectives without a close relationship with local school systems. Those responsible for vocational education, or the broader concept of career education, can't achieve their objectives without closer, more functional relations with the industrial and business managers. The reason is obvious. The latter are needed to carry out successfully many of vocational education's supporting subsystems, e.g. manpower requirement forecasts, occupational skill and knowledge assessments, and job placement services.

All Project Metro school systems have some contacts with the employer community and, no doubt, good is derived from such contacts. Such contacts have two principal deficiencies: (1) they are not structured as multiple level contacts; usually, it is one low level of management relating in a narrow way to another low level on some specific purpose, (2) they are inadequately conceived as on-going mechanisms for exchanging information. in short, such relationships are inadequate because they are not built upon an awareness of a basic need to establish and maintain a working relationship in the many areas they are ultimately related to educational objectives.

The new breed of educator-manager needed today must have the skill to interact with his counterparts in industry and commerce, to establish the bridges needed for more effective two-way communications. The basic problem is not how to develop more effective relations between the school systems and the employer communities that they serve. The basic problem is how to develop the kind of educator-manager who knows that such relations are essential and who has the will and competence to develop them.

INADEQUATE RELATIONS WITH COMMUNITY OF PARENTS

The major city school districts need to improve their relations with the parents of all students who may eventually enroll in vocational education programs. The parents need the benefit of a long-range vocational education orientation and information program. We have seen that the parent is the single most important source of influence on vocational course selection. What we have not seen, in this study, is parental influence against enrollment in vocational programs. All evidence indicates that a very substantial percentage of parents have negative attitudes toward vocational education. It makes little sense to talk about career orientation and exploration programs in the elementary and middle grades for all students without making a corresponding effort to change parental attitudes and to inform parents about the career opportunities through vocational education. Most of all parents need to know more about what happens to those who complete vocational education. They need proof that very solid careers are possible through vocational education. They need proof that vocational education does not close the door to higher education. The major city school systems simply do not do an adequate job of orienting parents about vocational education. Indeed, most do no job at all in this area. They are waiting for someone else to brighten the image of vocational education.

More is needed than a passive one-way communication of information to parents during the period from the first exposure of students to career orientation programs to the decision that elects a particular curriculum. Ideally, the program should improve relations with parents through imaginative efforts to involve parents actively in the whole philosophy of career education. In a sense, there must be an on-going dialogue between the parents and the school system on matters related to the career education of their children. It is only by such a dialogue that the education planners can develop vocational and pre-vocational programs that take into account; and possibly even change, the fears, negative attitudes and prejudices that parents may have about vocational education. In short, vocational educators need to know as much about parents as parents need to know about vocational education.

Where is the major city school system that comes anywhere close to this type of program for improving relations between parents and the school system?

ABSENCE OF VOCATIONAL EDUCATION SUPPORTING OPERATIONAL RESEARCH

We shall define operational research simply as the collection and analysis of data that provides an understanding of the problems that interfere with greater realization of vocational education objectives. In a sense, the present report is an example of vocational education operational research. We have identified problems related to vocational education objectives, explored the relationships between some of these problems, and ended up with a sharper definition of where corrective action is needed. That is what we mean by operational research. It ferrets out weaknesses. It analyzes such weaknesses in terms of contributing factors. It recommends change to strengthen vocational education.

This type of research is conspicuously absent in major city school systems. There is a built-in lack of capacity to engage in critical self-evaluation. It would seem that those who know vocational education the best know research methodology the least. However, lack of methodological know-how is only one reason for the lack of supporting operational research. The more important reason is lack of strong motivation to know. The concept that one must do better next year than this year, and still better in the following year has simply not taken root in major city vocational education. The lion's share of all vocational education data collection not mandated by the Federal or state levels has but one purpose, namely to make the school system look good. That is self-deception, not operational research. And until the top level of major city education management says we can do better, we must do better and we will do better there will be little incentive to engage in the kind of operational research that vocational education needs to reach higher levels of effectiveness.

Here is another area in which the U. S. Office of Education can exert leadership. The major cities need personnel trained in operational research methodology and the resources necessary to employ the skills of such personnel. To our knowledge, no Federal monies are being directed at this problem for expenditure at the local level. Undoubtedly, one reason is that there is so little grasp at the U. S. Office of Education of the kinds of basic problems that we have been discussing. The question is, what can the U. S. Office of Education do as a first step to stimulate supporting operational research for vocational education. The answer is, create the mechanism for focusing the attention of selected educational talents on the question, and all manner of ideas will unfold for further sifting. Out of that process should come (1) models of the kind of operational research that is needed and (2) approaches to stimulate local-level operational research. One could write a book about both of these topics. We have made our major point.

INADEQUATE INVOLVEMENT OF VOCATIONAL TEACHER PERSONNEL

With the exception of a small percentage, who for body chemistry reasons unknown, persist at a high level of enthusiasm, most teachers suffer flagging motivation only slightly less so than do their students. The reason is the same for teachers as for students. Persons who are put into someone else's intellectual (or work) straight-jacket, with little involvement in the total process of which they are a part, have difficulty maintaining enthusiasm. The vocational teacher is more apt to be looked upon as the workhorse needed to pull the vocational education wagon. Instead, the vocational teacher should be up in the driver's seat, along with the rest of the management team. First, because he usually knows more about the occupational field that he is teaching than does any other level of vocational education management. In short, he is a valuable resource that should be tapped for inputs into the management thinking process. Second, his involvement at a higher level is the key to his own motivational problems. Involvement outside of his instructional role will expand his sense of participation in the management process. Inevitably, new perspectives will evolve.

The vocational teacher has a potential role to play in virtually all vocational education subsystems, like career orientation, occupational information, vocational guidance, labor market requirement forecasts, job placement services, program planning and evaluation, etc. Naturally, there will be problems of additional compensation, of unresponsive teachers, of looser administrative controls -- there are always obstacles to new approaches. They should not be used as excuses for maintaining the present inadequate involvement of vocational teacher personnel in the total vocational education process, including management.

Specifically, we would recommend that the start be made by creating two levels of vocational advisory committees at each school location: (1) program level committees, i.e. committees concerned with problems related to specific program fields such as business education, distributive education, etc. and (2) school level committees, i.e. committees that consist of representatives of the program-level committees who can take a larger perspective on the problems that reduce vocational education effectiveness. The best efforts of such committees should be used as sounding boards for ideas originating at higher levels, as task-forces to study further specific problems revealed by operational research and outside evaluation studies, as resources for recommending alternative courses of action, as -- no need to go further. The dynamics set in motion by such committees will inevitably enlarge the responsibilities of the committees.

The committees should also be extended to higher echelons. Representatives of school-level advisory committees may be included at the district or area district level. To assure leadership development rather than passive audiences, such committees are best chaired by vocational teachers with other personnel called in as needed or as wanted.

Here again is an area for U. S. Office of Education leadership. Solicit an interested city for a pilot project. Provide the necessary resources to compensate teachers for the extra time involved. In short, buy some experience at developing democratic structures within the major city educational systems to determine the motivational and other beneficial effects. A little yeast at the bottom is needed to raise the level of effectiveness.

INADEQUATE APPLICATION OF MANAGEMENT CONCEPTS, PRINCIPLES AND TECHNIQUES

An industrial enterprise, unless supported by taxpayers through a governmental agency, has one absolutely fundamental goal, and that is to make a profit. If it persists in not making a profit -- and certainly if it persists in annual losses -- it probably will not survive. That overly simplistic economic fact of life is why a science of management has evolved in industry. Until recent years, American industry has been far in advance of the rest of the world in supporting and applying new developments in the so-called management science. Management development, both in and out of industry, involves expenditures in the hundreds of millions of dollars annually. Industry wants trained managers, "professional" managers, managers who are knowledgeable and skilled in terms of basic management functions. One sees this need reflected in the business education and industrial administration schools, in the multitude of companies selling management development services, in the steady outpouring of books and other literature concerned with one or another aspect of management, in the professional associations and their membership developmental activities. Indeed, we have become so good at exporting our management know-how that the gap in the management arts between the U. S. and other highly industrialized countries is rapidly closing.

None of this is to say that the majority of our industrial and commercial enterprises are well-acted paragons of management science at work. Quite the opposite is true. There is still much mismanagement that passes for management.

But what has this to do with vocational education? It has everything to do with it, and even general education. Educators don't behave like good managers. They don't gravitate toward management concepts, principles, tools, etc. in the same way as do industrial managers. The need and urgency is not there. Nothing illustrates this more convincingly than the inadequate Federal expenditures for the development of educator-managers. Even where money is spent for the development of educators, a negligible amount goes for the development of management skills in educator-administrators. Such monies are mainly spent for the purpose of keeping the educator-administrator "abreast with the field", which includes everything but the business of being a manager.

Educators resent being told that they have something to learn about management from industry. Any conversation along these lines with educators, singly or in groups, by the writer invariably stimulated protests that education is not industry. It is indeed industry, the biggest. The differences are details. Educator-administrators have the same need for the whole gamut of management skills and tools as do industry managers, given the same potential for gain and loss. There lies the core of the problem. What modern industrial enterprise would put up with a division manager who year after year had twenty percent of his output rejected because of quality defects? What major city school system would not put up with a principal who year after year had the worst dropout rate in the city? The former knows that if he can't solve the problem, someone else will. The latter knows he can always hide behind the so-called poor quality students that he is charged with educating. He takes comfort in the bureaucratic rigidity imposed upon him, he doesn't have to change things to solve the problem.

Throughout this discussion, we have touched upon problems that testify to the inadequacy of education management, e.g. absence of a manpower conversion concept; lack of measurable vocational education objectives; inadequate vocational education supporting systems; failure to define responsibilities and to use accountability approaches; archaic and self-defeating administrative structures; inadequate relations with the employer community upon which their success depends; inadequate relations with parents, another source with a large measure of influence over their success; the absence of supporting operational research; and lastly, their failure to tap the resources inherent in their front lines of supervision, the vocational teachers. A business that operated so would soon be out of business. Possibly that's why there is an increase in those who would put public education out of business.

Our major point is this. It is not education technology that will signal a new education, but a change in education management. The mainspring that starts all the wheels in action, and keeps them in action, is top management, not the newest gagetry that accumulates in the classroom. We need a new breed of educator-manager more than we need new and better teaching machines. Our educator-administrators need to move in the direction of becoming educator-managers, not in the direction of the purchasing department for the latest, point-at-able "answer" to education's problems.

If the U.S. Office of Education puts its collective mind to the problem, it will come up with some useful answers to the question, What else can be done to improve the quality of education management? Someone at that level should be asking that question. Indeed, there should be priority concern with this problem. Perhaps some imaginative person can even convert the problem to a slogan -- and act on it before he moves up and/or out.

THE NEED FOR A SYSTEM OF VOCATIONAL PROGRAM AUDITS

The U.S. Office of Education, and in turn, the State Departments of Education, may develop fine, commendable "paper" programs for vocational education, but that is no guarantee that their will be any basic changes at local or school district levels that reflect what is intended at the Federal and State levels. Invariably, there is much lip service to undeniably sound recommendations, such as improved career guidance, more prevocational career education experience, organized placement services for vocational graduates, etc. The fact that the local school districts have some minimum effort that can be classified under, for example, a basic pupil service heading does not mean that there is an effective program at the local level. All cities will claim that they provide placement services for vocational graduates. In truth, in all cities there are some graduates who do get jobs through the help of an interested vocational teacher or guidance counselor. That is not the issue. The issue is that virtually no cities have (1) organized vocational student placement service under the direction of one person who has been charged with the responsibility of placing graduates into the fields for which trained (if that is what they want) and (2) a management procedure to asses the effectiveness of such placement services.

What is needed? What is needed from the Federal and State levels is (1) specific guidance in the form of manuals that provide the basic concepts, principles and procedures related to each of the basic student services and (2) standardized program audit forms and procedures which can be applied by the state-level field audit teams as well as district-level self-audit teams. The proof-of-the-program is not its description in a manual or a self-serving public relations brochure or in an education publication article. The proof of a program, such as placement services is in (1) objectively obtained data which describes the effectiveness of the program and the findings of an objectively-conducted audit of the programs at the local level. The concept of educational program audits is an integral part of educational management by objectives, responsibility and accountability. The purpose of such audits is to reveal the weaknesses and strengths of program implementation at the local level.

The leadership for the development of the career education audit program should come from the Federal level simply because there is where leadership should begin when widely-spread problems are ignored at the local level. The Office of Program Planning and Education would do better if it stopped putting its resources into one-shot effectiveness evaluation studies and instead developed effectiveness evaluation procedures that could be adopted, with or without modifications,by the states and passed on to their local levels. In conjunction with such developments, the U.S. Office of Education should require the states to adopt or develop a career education audit procedure that assures state-level audits as well as local-level self audits. State plans for Vocational Education should make provisions for such CPA's (Career Program Audits), and no state plan should be approved without an acceptable sub-plan for such CPA's.

A FINAL WORD OF WARNING

Vocational education is riding the crest. It is no longer the neglected step-child. Each year, more Federal, state and local funds are expended for vocational education. The widely-publicized difficulties of the college graduate in the employment field have well served the "intrinsic rightness" of vocational education. The equally publicized shortages of skilled manpower in many occupational fields have also served the course of expanded vocational education. In short, vocational education, occupational education or career education has increasingly become an "in" thing in recent years, and that trend is likely to continue for some years to come. It's a bull market for vocational education.

Our word of warning is simple. Unless vocational education takes a more critical self-attitude and takes steps to greatly improve its effectiveness, there will be a day of disillusionment and reckoning. Vocational education today is not equal to its reputation in the minds of those who provide the money. It simply does not work as well as people think it does.

When overall less than 20 percent of the vocational program graduates in major cities obtain jobs in the field for which trained and when the great majority of those who do obtain jobs out of the field for which trained are employed in unskilled or semi-skilled work that they could have done without the benefit of any vocational education, then something is radically wrong with vocational education at the secondary level. That is one man's opinion. The educators will no doubt have a different opinion.

AND ONE LAST COMMENT

Is the cup half empty or half full? We prefer to see it as half empty. Anyone who wears rose-colored glasses when he looks at today's vocational education in our major cities is doing a disservice to vocational education. The deficiencies of vocational education in these cities will not be corrected by self-serving praise or indignant howls of protest that we have not emphasized the positive. It is not the positive that now needs emphasis. The emphasis should be on eliminating the negatives.

M. U. ENINGER